THE MARK OF CANE: A MICROECONOMIC CASE STUDY OF PROFITABILITY, ACCOUNTING AND PLANTATION MANAGEMENT ON THREE BARBADIAN SUGAR PLANTATIONS, 1763-1815

by

Michael Hatton

Submitted in partial requirements for the requirements
of the degree of Master of Arts

at

Dalhousie University
Halifax, Nova Scotia
August 2014

Table of Contents

List of Tables

List of Figures

Abstract

This microeconomic case study of sugarcane plantation management, accounting and profitability examines three Barbadian plantations, Newton, Seawell and Mount Alleyne from 1763 to 1815, with an econometric methodology. Despite facing various economic, political, demographic and ecological challenges in the wake of the American Revolutionary War and Great Hurricane of 1780, Barbadian planters were able to maintain consistently high profits by adopting novel, inventive strategies of plantation management. This thesis argues that Barbadian sugar plantations remained highly profitable throughout the late 1700s and furthermore produced most of the provisions required to feed their slave populations domestically rather than importing them. It examines the nature of the Atlantic world plantation complex, arguing that sugar plantations should be conceptualised as places of brutalising violence and dehumanising oppression, proto-industrial "factories in the field", elaborate capitalist enterprises with a diversity of labour and production and as dynamic nexuses of meticulous planning and innovation.

Acknowledgements

First and foremost I would like to thank Justin Roberts, my thesis supervisor, who guided me through this process and generously provided me with some of the necessary primary sources to research this topic. Justin taught the first University history class that I ever took and his knowledge and charisma inspired me to pursue history at the graduate level and helped focus my interests upon the history of sugar and slavery within the Atlantic world. He has acted as a mentor figure to me and shall serve as a role model for the rest of my academic and professional life.

Secondly, Jerry Bannister provided some very valuable assistance to me in drafting and conceptualising my thesis. He also served as the second thesis reader on my supervisory committee alongside Phil Zachernuk and John Bingham. Colin Mitchell was also of great help in his capacity as graduate coordinator.

Thirdly, a great thanks goes to fellow history students and "Caribbean Club" members, Mike Kofahl, Daisy Ramsden, Conner Coles and Michael Smith who read several portions of this thesis and provided me with valuable critiques and suggestions. The Dalhousie history department administrative assistants Valerie Peck and Tina Jones provided enormous logistical and moral support me throughout the graduate studies process as well.

Additionally, I would like to thank Phil Morgan, François Furstenberg, Michael Kwass, Max Edelson, Daniel Vickers, David Eltis, Chris Bell, Michael Ramsay, Sarah-Jane Corke, David Ryden, David Lambert, Brad Wood, Krista Kesselring, Ian Beamish, Eric Otremba, Claire Gherini, Nick Radburn, Steven Pitt, Meredith Gaffield, Álvaro Caso Bello, Jean-Olivier Richard, Alexandra Fenton, Aleksandra Golubovic, Claudine Bonner, Dan Pitcher, Erica Steele, Steve Pottie, Shawn Hatton, Patrick Hatton, Megan Zeller, Lynn Mathieu, Dalhousie University, Johns Hopkins University and the Fickle Frog Pub. Finally, I must give due thanks to my parents Rick Hatton and Anne Coward, without whose support and criticism, this entire process would not have been possible.

CHAPTER 1 – INTRODUCTION

The cultivation, harvesting, milling, refining and export of sugarcane in the early-modern Atlantic world, though potentially quite profitable, required careful planning and rigorous management and control of time, labour, equipment and finance.[1] Accordingly, one prominent Antiguan plantation proprietor, Samuel Martin, compared "a good planter" to "the best generals and the wise politicians of the Roman Commonwealth."[2] Perhaps nowhere was this reality more acute than on the tiny Caribbean island of Barbados, the Easternmost of the Lesser Antilles. Occupying a mere 431 km^2, the island is removed from its neighbours in the Windward Islands, lying 168 km east of Saint Vincent and 400km northeast of Tobago. Despite its diminutive size, however, it played a remarkably preeminent role in the colonisation of the British Atlantic world, the implementation of the sugarcane plantation complex that radically

[1] For a thorough definition of the Atlantic world as a historical, geographic and historiographical concept, its origins as a theoretical frame of reference and its implications for the study of history, see Jack P. Greene and Philip D. Morgan, eds, *Atlantic History: A Critical Appraisal* (New York: Oxford University Press, 2008), 3-34; Bernard Bailyn, *Atlantic History: Concept and Contours* (Cambridge, MA: Harvard University Press, 2005), 1-56; David Armitage, *Three Concepts of Atlantic* History, in David Armitage and Michael J. Braddick, eds, *The British Atlantic World, 1500–1800 (*New York: Palgrave Macmillan, 2002): 11-27; Alison Games, "Atlantic History: Definitions, Challenges, and Opportunities," *American Historical Review* 113.3 (2006): 741-757. For a definitive account of the significance of sugar in modern history, see Sidney Mintz, *Sweetness and Power: The Place of Sugar in Modern History* (New York: Penguin Books, 1985). For a modern account of the variable considerations concerning sugarcane cultivation, see Henk Bakker, *Sugar Cane Cultivation and Management* (New York: Springer, 1999). For contemporary historical accounts of sugarcane cultivation in the British Atlantic world, see William Belgrove, *A Treatise Upon Husbandry or Planting* (Boston: D. Fowle, 1755); Benjamin Moseley, *A Treatise on Sugar* (London: G. G. & J. Robinson, 1799); or the anonymously written *The Art of Making Sugar* (London, 1752). For a contemporary French account, see Jacques-François Dutrône de La Couture, *Précis sur la canne: et sur les moyens d'en extraire le sel essentiel, suivi de plusieurs mémoires sur le sucre, sur le vin de canne, sur l'indigo, sur les habitations & sur l'état actuel de Saint-Domingue : ouvrage dédié à cette cololonie, & imprimé à ses frais / par Jes-F. Dutrône* (Paris: Chez Debure, 1791).

[2] Samuel Martin, *An Essay Upon Plantership*, 4th edn. (London: T. Smith, 1765), iii.

and irrevocably transformed its economy, ecology and demography, and in the forced migration of indentured and enslaved human beings, who served as its primary labour source.[3] By the mid-seventeenth century, Barbados had become the sugar-producing capital of the world with its economy and society dominated by a wealthy planter class, reaching the apogee of its economic and historical prominence in the 1680s, though during the eighteenth century, the island began to become increasingly overshadowed, both economically and demographically, by larger Caribbean colonies such as Jamaica, Saint-Domingue and eventually Cuba.[4] By the mid-eighteenth century, these powerful Barbadian planters faced various existential threats to their continuous long-term prosperity including rising labour and food costs, falling sugar prices, land and fuel shortage, soil erosion and depletion, the constant threat of war and slave revolt, vermin and pests, hurricanes and increased competition from other sugar-producing islands.[5]

---

[3] The term "plantation complex" refers to the systematic concentration, mobilisation and exploitation of financial, agricultural and labour resources to generate a profitable staple crop commodity such as sugar, coffee, tobacco or cotton for export to a foreign market. It typically relied upon coerced labour force, which was epitomised by the forced migration of enslaved black Africans during the transatlantic slave trade, and was most prevalent in the tropics, particularly upon islands and along coasts and rivers. For a more complete definition, see Philip S. Curtin, *The Rise and Fall of the Plantation Complex: Essays in Atlantic History* (Cambridge: Cambridge University Press, 1990), ix-x.

[4] John J. McCusker and Russell Menard, *The Economy of British America 1607-1789* (Chapel Hill: University of North Carolina Press, 1985), 144-168; Russell R. Menard, *Sweet Negotiations: Sugar, Slavery and Plantation Agriculture in Early Barbados* (Charlottesville: University of Virginia Press, 2006), 11-105; Richard Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713* (Chapel Hill: University of North Carolina Press, 1972), 46-83; Richard Sheridan, "The Formation of Caribbean Plantation Society, 1689–1748," in P. J. Marshall, ed*., The Oxford History of the British Empire: The Eighteenth Century*, vol. II (New York: Oxford University Press, 2001): 394–414. For more on Jamaican sugar plantations, see B.W. Higman, *Plantation Jamaica, 1750–1850: Capital and Control in a Colonial Economy* (Kingston, Jamaica: University of the West Indies Press, 2005). For Saint-Domingue, see Gabriel Debien, *Les Esclaves aux Antilles Françaises (XVIIe–XVIIIe Siècles)* (Fort-de-France, Martinique: Société d'Histoire de la Martinique, 1974). For Cuba, see Manuel Moreno Fraginals, *The Sugarmill: the socioeconomic Complex of Sugar in Cuba, 1760-1860* (New York, Monthly Review Press, 1976).

[5] Justin Roberts, "Uncertain Business: A Case Study of Barbadian Plantation Management, 1770-1793," *Slavery & Abolition* 32.2 (2011): 247. For the variation of slave and sugar prices, see David Eltis, Frank D. Lewis and David Richardson, "Slave Prices, the African Slave Trade, and Productivity in the Caribbean, 1674-1807," *The Economic History Review* 58.4 (2005): 679-682. For the real and imagined threat of slave

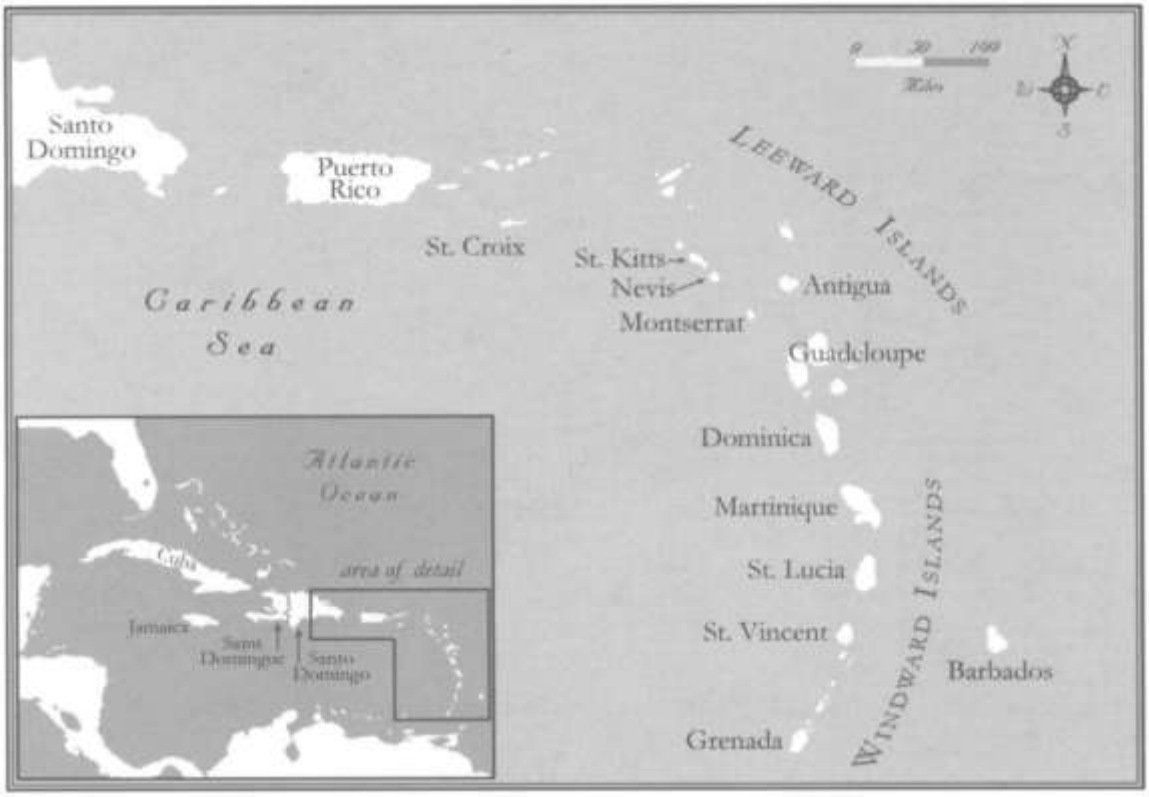
To face these significant new challenges, some planters adopted innovative strategies and mobilised resources in novel and ever-evolving ways, with varying degrees of effectiveness, including increased and improved manuring and fertilising techniques such as fly-penning; the burning of cane trash rather than wood as fuel; improved cane-holing techniques; producing more rum and clayed or refined sugar; intercropping, crop rotation and fallowing; the cultivation of other cash crops such as cotton to diversify production and revitalise the soil; and an increased domestic cultivation of food crops such as yams, cassava, potatoes, eddoes, "Indian corn" (maize) and "Guinea corn" (sorghum), beans and peas to reduce reliance on foreign imports.[6]

---

revolts, see Michael Craton, *Testing the Chains: Resistance to Slavery in the British West Indies* (Ithaca, NY: Cornell University Press, 1982); Hilary Beckles, *Black Rebellions in Barbados: The Struggle Against Slavery, 1627-1838* (Bridgetown: Antilles Publications, 1984). For vermin and pests, see Robert H. Schomburgk, *The History of Barbados Comprising a Geographical and Statistical Description of the Island; a Sketch of the Historical Events and Settlements; and an Account of the Geology and Natural Productions* (London: Longman, 1848), 640-653. For ecological considerations see Otis P. Starkey, *The Economic Geography of Barbados: A Study of the Relationships between Environmental Variations and Economic Development* (New York: Columbia University Press, 1939), 13-50; David Watts, *The West Indies: Patterns of Development, Culture, and Environmental Change since 1492* (Cambridge: Cambridge University Press, 1987), 128-446. For the threat posed by hurricanes, see Matthew Mulcahy, *Hurricanes and Society in the British Greater Caribbean, 1624–1783* (Baltimore: The Johns Hopkins University Press, 2006). For a primary historical account, see John Poyer, *A History of Barbados from the First Discovery of the Island in the Year 1605 Till the Accession of Lord Seaforth 1801* (London: Frank Cass and Co., 1971 [1808]); George Frere, *A Short History of Barbados from its First Discovery and Settlement to the Present Time* (London: J. Dodsley, 1768).

[6] Justin Roberts, *Slavery and the Enlightenment in the British Atlantic World, 1750-1807 (*New York: Cambridge University Press, 2013), 26-131; Starkey, *The Economic Geography of Barbados*, 66-94. For Intercropping, see J. R. Ward, *British West Indian Slavery, 1750–1834: The Process of Amelioration* (New York: Oxford University Press, 1988), 61-64; Justin Roberts, "Working between the Lines: Labor and Agriculture on Two Barbadian Sugar Plantations, 1796–1797," *William and Mary Quarterly* 63.3 (2006): 551–586. For manuring techniques and the burning of cane trash, see Watts, *The West Indies*, 382-447. For cane-holing techniques, see "Origins of Barbadian Cane Hole Agriculture," *Journal of the Barbados Museum and Historical Society* 32.3 (1968): 143–151. For clayed sugar, see David Eltis, *The Rise of African Slavery in the Americas* (Cambridge, UK: Cambridge University Press, 2000), 197-204. For domestic food production, see Hilary Beckles, "An Economic Life of Their Own: Slaves and Commodity Producers and Distributors in Barbados," in Ira Berlin and Philip D. Morgan, eds., *The Slaves' Economy: Independent Production by Slaves in the Americas* (London: Frank Cass, 1991): 31-47; Roberts, "Working Between the Lines," 558-560. For contemporary accounts by Barbadian planters and prescriptive literature, see I. P. Baker, *An Essay on the Art of Making Muscovado Sugar Wherein a New Process is Proposed* (Kingston,

Figure 1. *A map of the Eastern Caribbean*



Source: Justin Roberts, "Working between the Lines: Labor and Agriculture on Two Barbadian Sugar Plantations, 1796–1797." *William and Mary Quarterly* 63.3 (July 2006): 551–586, 5. Drawn by Rebecca L. Wren.

In order to further elucidate and quantify the extent of some of the changes taking place in the Barbadian sugar industry during this period, this thesis will perform a microeconomic case study of sugarcane plantation management, profitability and

---

Jamaica: Joseph Weatherby, 1775); Clement Caines, *Letters on the Cultivation of the Otaheite cane: the manufacture of sugar and rum; the saving of melasses; the care and preservation of stock; with the attention and anxiety which is due to Negroes: To these topics are added, a few other particulars analogous to the subject of the letters; and also a speech on the slave trade, the most important feature in West Indian cultivation* (London: Messrs. Robinson, 1801); Patrick Kein, *An Essay upon Pen-Keeping and Plantership* (Kingston Jamaica: His Majesty's Printing Office, 1796); Edwin Lascelles, et al*. Instructions for the Management of a Plantation in Barbadoes. And for the Treatment of Negroes* (London: [s.n.], 1786); Gordon Turnbull, *Letters to a Young Planter; Or Observations on the Management of a Sugar Plantation* (London: Stuart and Stevenson, 1785). For a counterpoint arguing that planters were conservative, intransigent and resistant to change, see Heather Cateau, "Conservatism and Change: Implementation in the British West Indian Sugar Industry 1750–1810*," Journal of Caribbean History* 29.2 (1995): 1–36; Heather Cateau, "'A Question of Labor': British West Indian Plantations, 1750–1810," *Plantation Society in the Americas* 6.1 (1999): 65–94.

accounting in Barbados by examining the Newton Family Papers, a rich set of plantation records pertaining to the operation of three sugar plantations, Newton, Seawell and Mount Alleyne, between 1763 and 1815.[7] These documents are quite exceptional because they contain annual account abstracts which purport to document and itemise absolutely all of the expenses and sources of revenue on each plantation, and the evidence seems support this.[8] This is remarkably rare and provides a rather unique insight into the microeconomics of British West Indian sugar plantations.[9] Newton and Seawell plantations are in the south of the island in the parish of Christ Church, while Mount Alleyne is on the west of the island in the parish of St. James.[10] This period spans many critical and formative events in Barbadian and Atlantic world history including the Treaty of Paris in 1763, the American Revolutionary War, the Great Hurricane of 1780 which devastated Barbados, the French Revolutionary Wars, the Haitian Revolutions, the Napoleonic Wars, the War of 1812 and the British abolition of the transatlantic slave

[7] This set of documents is known as the Newton Family Papers. It is filed as MS 523 in the Senate House Library at the University of London Archives in London, UK. Research for this thesis, however, was done using the microform copies located in the Milton S. Eisenhower Library at Johns Hopkins University in Baltimore, MD and various digital scans thereof. Some of these digitally scanned files as well as several transcriptions of manuscripts in the Newton Family Papers were generously provided to me by Justin Roberts. Although the Newton Family Papers contain documents that span from 1706-1894, the most complete and detailed documents span from 1771-1815, in the case of Newton, 1771-1801 in the case of Seawell and 1771-1783 in the case of Mount Alleyne. They contain annual financial account abstracts, ledgers, journals, letterbooks, work logs, bills of lading, correspondences, inventories and censuses.

[8] Christine E. Micklem, *The Newton Papers: A* Handlist, MS 523, (London: University of London Archives, 1969), iii-vi.

[9] Besides Newton, Seawell and Mount Alleyne, the only other plantations with entirely comparable annual account abstracts are Turner's Hall and Lowther plantation, which all shared a common plantation attorney, John Gay Allyene. For these plantation papers, see Abstract of Accounts, 1770-1793, E 20680-E 20700, Fitzherbert Papers; Abstract of Accounts, 1770-1793, E 20680-E 20700, Fitzherbert Papers Abstract of Accounts, 1781-1799, CH/1/10, Lowther Estate Papers.

[10] Christ Church is the southernmost parish on the island, whose capital is Oistins, which was at this time, the second largest town on the island after Bridgetown, and a major port. For more on the various parishes and the political and local geography of Barbados, see Schomburgk, *The History of Barbados*, 198-251.

trade, which affected the British West Indian sugar economy, as well the specific sugar plantations in question.[11]

With a strong reliance upon archival manuscripts and contemporary historical and prescriptive literature, this thesis will not only illuminate the microhistorical narratives of these three sugar estates throughout this period, but also connect them to the relevant secondary literature and both complement and at times challenge much of the extant historiography regarding profitability and economic viability, fluctuating commodity prices, labour allocation, slaves' material conditions, hierarchical labour structure, plantation management and domestic food supply. It is important, however, to acknowledge the limitations of the prescriptive literature which represents a kind of formulaic "best case scenario" for sugar planting which was not always followed in practice and was also sometimes used as a pro-slavery rhetorical device against Abolitionist arguments. Nonetheless, much of it was written by highly accomplished sugar planters such as Samuel Martin and Philip Gibbes and insofar as it matched the

[11] For the effects of the American Revolutionary War upon Barbadian sugar plantations, see Richard Sheridan, "The Crisis of Slave Subsistence in the British West Indies During and After the American Revolution," William and Mary Quarterly 33.4 (1976): 615–641; Andrew Jackson O'Shaughnessy, *An Empire Divided: The American Revolution and the British Caribbean* (Philadelphia: University of Pennsylvania Press, 2000). For the effects of the Great Hurricane of 1780, see Mulcahy, *Hurricanes and Society in the British Greater Caribbean*, 147-151, 174-180; Schomurgk, *The History of Barbados*, 339-343. For the effects of the Abolition of the transatlantic slave trade, see Dave St. Aubyn Gosse, *Abolition and Plantation Management in Jamaica 1807-1838* (Jamaica: University of West Indies Press, 2012). For the Haitian Revolution, see Laurent Dubois, *Avengers of the New World: The Story of the Haitian Revolution* (Cambridge, MA: Harvard University Press, 2004). For a history of the French Revolutionary Wars and Napoleonic Wars, see Gregory Fremont-Barnes, *The Encyclopedia of the French Revolutionary and Napoleonic Wars: a Political, Social, and Military History* (Santa Barbara, Calif.: ABC-CLIO, 2006).

situation on Newton, Seawell and Mount Alleyne plantations, it is highly useful and relevant to this thesis.[12]

The historiography of this type of microhistorical plantation study in the British West Indies is relatively limited, with few records being rich and complete enough to merit such detailed examinations. Monograph-length historical analyses of individual sugar plantations exist for Mesopotamia, Montpelier, and Worthy Park plantations in Jamaica and for Codrington plantation in Barbados.[13] Additionally, archaeological studies have been performed for Drax Hall in Jamaica and Newton plantation in Barbados.[14] An article-length labour study has also been performed for Seawell and Newton plantations which became a central component of a comparative monograph.[15] Beyond this, Turner's Hall in the northern Barbados parish of Saint Andrews has been the subject of an economic historical study, the methodology of which is perhaps most

[12] Martin, *An Essay Upon Plantership*; Belgrove, *A Treatise Upon Husbandry or Planting*.

[13] For individual plantation studies, see Richard Dunn, "A Tale of Two Plantations: Slave Life at Mesopotamia in Jamaica and Mount Airy in Virginia," *William and Mary Quarterly* 34.1 (1977): 32–65; B.W. Higman, *Montpelier: A Plantation Community in Slavery and Freedom, 1739–1912* (Kingston, Jamaica: The Press University of the West Indies, 1998); Michael Craton, *Searching for the Invisible Man: Slaves and Plantation Life in Jamaica* (Cambridge: Harvard University Press, 1978); Michael Craton and James Walvin, *A Jamaican Plantation: The History of Worthy Park 1670-1970* (London: W. H. Allen, 1970); J. Harry Bennett, *Bondsmen and Bishops: Slavery and Apprenticeship on the Codrington Plantations of Barbados, 1710–1838* (Berkeley: University of California Press, 1958); Frank J. Klingberg, ed, *Codrington Chronicle: An Experiment in Anglican Altruism on a Barbados Plantation, 1710-1834* (Berkeley: University of California Press, 1949).

[14] For archaeological studies, see Jerome S. Handler and Frederick W. Lange, with Robert V. Riordan, *Plantation Slavery in Barbados: An Historical and Archaeological Investigation* (Cambridge: Harvard University Press, 1978); Douglas V. Armstrong with Elizabth J. Reitz, *The Old Village and the Great House: An Archaeological and Historical Examination of Drax Hall Plantation, St. Ann's Bay, Jamaica* (Urbana: University of Illinois Press, 1990).

[15] Roberts, "Working Between the Lines"; Roberts, *Slavery and the Enlightenment in the British Atlantic World, 1750-1807*. The latter work compares these plantations to Somerset Vale, Prospect Estate, Duckensfield Hall, Pleasant Hill and Phillipsfield in Jamaica and Mount Vernon in Virginia.

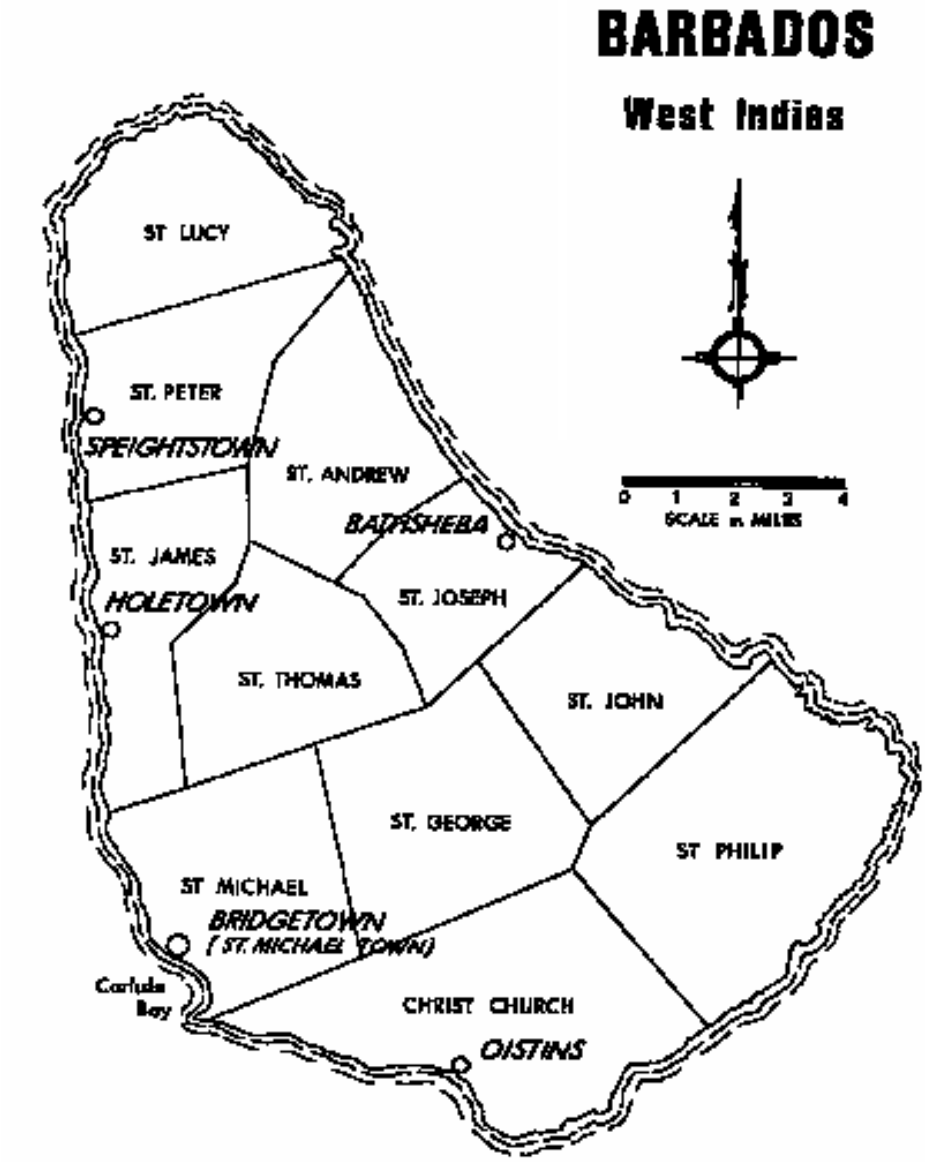
similar to this thesis.[16] Finally, an overarching comparative analysis of the profitability of various sugar plantations throughout the British West Indies, including Jamaica, Guiana and the Lesser Antilles, is performed in J.R. Ward's groundbreaking article "The Profitability of Sugar Planting in the British West Indies, 1650–1834."[17] Many of the findings and assumptions and much of the methodology in Ward's article will be applied to this study as well, however, some of his numbers, conclusions and mathematical models pertaining to profit and capitalisation will be challenged and problematised.

Unlike all of its neighbouring islands that constitute the volcanic arc of the Lesser Antilles, Barbados is non-volcanic, giving it a distinct topography, geology and soil composition. At only 34 km long and 23 km wide, Barbados is composed mainly of a coral limestone cap covering layers of faulted sedimentary rock (See Figure 2).[18] The island is mostly flat, with a series of gently undulating plains that exhibit a gradual rise in elevation from the Caribbean coast to the interior upland plateau, rising to about 300m above sea level.[19] The northern portion of the island is somewhat separated from the rest of the island by a series of semicircular limestone escarpments and has a more rugged, hilly topography.[20] Barbados's soils are, generally speaking, rich and well

[16] Roberts, "Uncertain Business."
[17] J. R. Ward, "The Profitability of Sugar Planting in the British West Indies, 1650–1834," *Economic History Review* 31.2 (1978): 197–213.
[18] Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 9.
[19] David Lowenthal, "The Population of Barbados," *Social and Economic Studies* 6.4 (1957): 469.
[20] Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 9; Schomburgk, *The History of Barbados*, 531-557; Starkey, *The Economic Geography of Barbados*, 25-30; Lowenthal, "The Population of Barbados," 470-471. The northern portion of the island is referred to as the Scotland District. For the ramifications of its topography upon sugar cultivation, see Roberts, "Uncertain Business, 249. Comprising about a seventh of the island's area, the Scotland District is geologically distinct, lacking the limestone cap characteristic of the rest of the island, its "steep slopes of sand and clay highly susceptible to erosion."

drained, with the thickest soils being found in the eastern and central parishes and the thinnest being found in the northern and southeastern corners of the island.[21]

Figure 2. *Map of Barbados*



Source: Chandler Family Association. URL: http://chandlerfamilyassociation.org/dna_group_23.html.

[21] Starkey, *The Economic Geography of Barbados*, 2-5; Lowenthal, "The Population of Barbados," 469. For more on the implications of Barbados's soil composition, see Schomburgk, *The History of Barbados*, 568-572; Starkey, *The Economic Geography of Barbados*, 33-37.

Barbados lies nearly directly along the prevailing trade winds, which contribute to its tropical monsoon climate, characterised by a moderately wet season, from June to November, which accounts for about three quarters of annual precipitation, and a dry season, from December to May, with very little variation in temperature.[22] The more elevated regions receive more rainfall than the lower areas (where Newton, Seawell and Mount Alleyne are located), with the Scotland District typically receiving the most.[23] The average temperature on the island is 26°C with somewhat warmer temperatures on the coasts and lower ones in the interior upland plateau.[24] The island lies slightly outside of the principal hurricane belt and is thus generally less prone to hurricanes than many of its neighbours, however, it has been periodically struck by severe hurricanes such as in 1675, 1731, 1780 and 1831. Barbados sustained a direct hit from the Great Hurricane of 1780, the deadliest in Atlantic History, which caused extensive damage to the island and its sugar plantations, as will be examined later.[25] The dense forests that once covered Barbados were cut down in the 1650s and 1660s to feed the rapid transformation of the

[22] Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 10.
[23] Starkey, *The Economic Geography of Barbados*, 3; Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 10-11. Due to its small size and low relatively elevation, however, Barbados does not exhibit the East-West humid and arid divide, a phenomenon known as a "rain shadow," that is characteristic of some Caribbean islands. For more on weather and climate in Barbados, and its effect upon sugarcane cultivation, see Schomburgk, *The History of Barbados*, 13-78; Starkey, *The Economic Geography of Barbados*, 15-24.
[24] Starkey, *The Economic Geography of Barbados*, 3.
[25] Mulcahy, *Hurricanes and Society in the British Greater Caribbean*, 147-151, 174-180; Schomurgk, *The History of Barbados*, 339-343; Handler and Lange, with Riordan, *Plantation Slavery in* Barbados, 11.

island's economy to plantation-based sugarcane cultivation, such that by 1665, "all but the smallest traces of forest had been removed through felling or burning."[26]

Sir Olive Leigh, the first Englishman to set foot upon Barbados, stumbled upon the island in 1605, on his way back from Guyana, however the island was not formally claimed for the Kingdom of England until 1625 after being visited by John Powell.[27] Barbados was first settled by the English in 1627, when Henry Powell, John's brother, arrived with 80 settlers and 10 indentured servant children, thereby beginning the enduring and transformative history of the importation and exploitation of unfree labour on the island.[28] Over the next decade the island received more settlers than all other English colonies in the Americas combined, with the vast majority of immigrants arriving as indentured servants, serving five-year terms of labour.[29] In the first decade of colonisation the economy was dominated by tobacco, though of a different variety than was being grown on the continent, however this trade declined by the late 1630s due to

[26] Watts, *The West Indies*, 186; Watts, *Mans Influence on the Vegetation of Barbados,* 62. Today, the only significant remaining stand of trees is the 50 acre Turner's Hall Woods located in the Scotland District parish of Saint Andrews. For the significance of these woods, see Roberts, "Uncertain Business," 3-4.
[27] Poyer *A History of*, 4-6. Archaeological evidence suggests that Barbados was inhabited by the Amerindian Saladoid-Barrancoid culture from the 4th to 7th centuries. Beginning in the 13th century the island was visited by the Taino from the Greater Antilles and the Kalinago (Caribs) from South America, some of whom were captured by Spanish slave-raiding voyages and brought to work in the mines on Hispaniola. Perhaps as a result of this, the island appears to have been uninhabited by the time it was claimed by the Spanish and Portuguese in the late 1500s, the Amerindian population having presumably fled to neighbouring islands. Despite its nominal Iberian control however, the island was never truly colonised during this period. For more on the aboriginal population, see F.A. Hoyos, *Barbados: A History from the Amerindians to Independence* (London: Macmillan Education Limited, 1978), 1-13.
[28] Poyer, *A History of Barbados*, 4-6; Schomburgk, *The History of Barbados*, 259-263; Beckles, *A History of Barbados,* 9-10.
[29] Menard, *Sweet* Negotiations, 25, 29-48; Richard Dunn, *Sugar and Slaves*, 67-74; Beckles, *A History of Barbados*, 18-20. Beginning around the time of Cromwell, forced transportation to the island and the fulfillment of an indenture became a common punishment for criminals, vagrants and rebels, particularly those of Irish and Scottish extraction, a practice that quickly became known as being "Barbadoesed." For more on the role of indentured servitude, see Simon. P. Newman, *A New World of Labour: The Development of Plantation Slavery in the British Atlantic* (Philadelphia: University of Pennsylvania Press, 2013), 71-108, 272; Menard, *Sweet Negotiations*, 11-49.

collapsing prices caused by increased production in the Chesapeake.[30] Relatively short-lived experiments with the cultivation of other staple export crops such as ginger, cotton and indigo experienced some success, however the historical trajectory of the island was to be radically and irrevocably altered by the arrival of sugarcane.[31]

There is still also some debate among scholars regarding the precise origins, characteristics, pace, scale and extent of the transition to a sugarcane monoculture economy in the 1640s and 1650s. Historians such as Noël Deerr, W.R. Aykroyd, Richard Dunn, Richard Sheridan, J. H. Galloway, Philip Curtin and B.W. Higman have described a swift, radical transformation of the island to sugarcane monoculture that quickly displaced all other staple crops and occupied nearly all available arable land. This process is said to have relied heavily upon the importation of credit and sugar technology from Dutch Brazil into a struggling and depressed Barbadian economy, and precipitated a sudden, massive increase in the importation of African slaves, who quickly displaced indentured servants as the chief source of plantation labour.[32] More

---

[30] Menard, *Sweet Negotiations*, 20; Beckles, *A History of Barbados*, 16-18. For a more detailed examination of the Chesapeake plantation-based tobacco economy, see Lorena S. Walsh, *Motives of Honor, Pleasure and Profit: Plantation Management in the Colonial Chesapeake, 1607–1763* (Chapel Hill: University of North Carolina Press, 2010), 25-121.

[31] Menard, *Sweet Negotiations*, 20. It is not entirely certain exactly who first brought sugarcane to Barbados and when - with some sources crediting Dutchman Pieter Brower who is said to have brought it from Brazil in 1637, and others claiming it to be the London merchant James Holdip who came to the island and became a planter and a factor in 1629. For this debate, see [31] J.H. Parry, and Sir Phillip Manderson Sherlock, *A Short History of the West Indies* (New York: Macmillan, 1963), 64; W. R. Aykroyd, *Sweet Malefactor: Sugar, Slavery, and Human Society* (London: Heinemann, 1967), 31; Menard, *Sweet Negotiations*, 11-49.

[32] Noël Deerr, *The History of Sugar* Volume 1 (London: Chapman and Hall, 1949), 158-207; Noël Deerr, *The History of Sugar* Volume 2 (London: Chapman and Hall, 1950), 379-387; Aykroyd, *Sweet Malefactor*, 31-33; Dunn, *Sugar and Slaves*, 46-83; Richard B. Sheridan, *Sugar and Slavery: The Economic History of the British West Indies*, (Baltimore: Johns Hopkins University Press, 1974), 124-147; Curtin, *The Rise and Fall of the Plantation Complex*, 77-85; J.H. Galloway, *The Sugar Cane Industry: An Historical Geography from its Origins to 1914* (New York: Cambridge University Press, 1989), 80-84; B.W. Higman "The Sugar

recently however, Russell Menard and John J. McCusker have eschewed the notion of a "sugar revolution," preferring the term "sugar boom." They have articulated a more gradual transition to sugar cultivation that relied less upon foreign credit and technology and more upon domestic credit and extant plantation infrastructure heretofore devoted to other staple crops such as tobacco, cotton and indigo. They argued that the Barbadian economy was not depressed, that these other staple crops in fact experienced a brief renaissance after the arrival of sugar, that slavery existed in Barbados before sugar, and that indentured servitude on sugar plantations continued to rise afterwards and was not immediately replaced by slave labour.[33] Subsequent scholarship by Elizabeth Abbott and Matthew Parker has been able to bridge this historiographical divide by incorporating many of the more nuanced findings of McCusker and Menard while still utilising the term "sugar revolution."[34] Regardless of

---

Revolution," *Economic History Review* 53.2 (2000): 213–236. Deerr's account is significant because he also worked professionally in the sugar industry. For a primary account, see Richard Ligon, *A true and exact history of the island of Barbadoes* (London: Frank Cass & Co., 1970 [1657]). The Dutch *Westindische Compagnie* (WIC) or Dutch West India Company captured the major Brazilian sugar-producing region of Pernambuco in 1630, during the Eighty Years War. They renamed this region *Nieuw-Holland* or New Holland and held it until 1654, during which time they controlled the extant Portuguese sugar plantation infrastructure, which they exported throughout the Atlantic world. For more on Dutch Brazil, see C.R. Boxer, *The Dutch in Brazil, 1624–1654* (Oxford: The Clarendon press, 1957).

[33] John J. McCusker and Russell Menard, "The Sugar Industry in the Seventeenth Century: A New Perspective on the Barbadian 'Sugar Revolution,'" in Stuart B. Schwartz, ed., *Tropical Babylons: Sugar and the Making of the Atlantic World, 1450-1680* (Chapel Hill: University of North Carolina Press, 2004): 289-330; Menard, *Sweet Negotiations*, 18-66. This rejection of the Dutch credit hypothesis also somewhat echoes the earlier findings of Dutch historian Wim Klooster, in Wim Klooster, *Illicit Riches: Dutch Trade in the Caribbean, 1648-1795* (Leiden: KITLV Press, 1998).

[34] Elizabeth Abbot, *Sugar: A Bittersweet History* (Toronto: Penguin Canada, 2008); Matthew Parker, *The Sugar Barons: Family, Corruption, Empire, and War in West Indies* (New York: Walker and Company, 2011).

the exact mechanisms at play, however, by the 1650s, Barbados had become dominated by sugar cultivation, and was the most profitable colony in Atlantic world.[35]

"I believe," declared Richard Ligon rather prophetically in his landmark 1657 work *A true and exact history of the island of Barbadoes*, "when the small plantations in poor mens hands, of ten, twenty, or thirty acres, which are too small to lay to that work, be bought up by great men, and put together into plantations of five, six, or seven hundred acres, that two thirds of the island will be fit for the plantation of sugar, which will make it one of the richest spots of earth under the sun."[36] Enterprising planters such as James Drax would soon become this planter elite, and sugarcane cultivation across Barbados continued to grow at such an awesome rate that by the early 1680s, the island was fairly described by Governor Francis Willoughby in 1666 as "Barbadoes, that fair jewel of your Majesty's Crown."[37] For the first decade of sugar cultivation on the island, the labour force was dominated by white indentured servants rather than African slaves, with the slave population only surpassing the servant population in the late 1650s.[38] In fact, the number of indentured servants working on sugar estates continued to rise until the 1660s.[39]

As this transition from servant labour to slave labour took place, the racial composition of the island was drastically altered as well. The more that slaves became

---

[35] Dunn, *Sugar and Slaves*, 203; Sheridan, *Sugar and Slavery*, 487.
[36] Ligon, *A true and exact history of the island of Barbadoes*, 88.
[37] As quoted in Larry Dale Gragg, *Englishmen Transplanted: The English Colonization of Barbados, 1627-1660* (New York: Oxford University Press, 2003), 1; Menard, *Sweet Negotiations*, 16-17.
[38] John J. McCusker and Russell Menard, *The Economy of British America 1607-1789* (Chapel Hill: University of North Carolina Press, 1985), 153-154.
[39] Menard, *Sweet Negotiations*, 32.

the major productive source of the labour on the island, the less competitive wages became for free white workers, which caused them to leave the island en masse. By 1660, half of the island's population was black, and by 1710 that number was 80%.[40] Although Barbados consistently maintained a higher white proportion than other islands such as Jamaica, it was nonetheless becoming dominated demographically by its African slave population.[41] By the 1770s, population growth in Barbados began to stagnate as more and more of the available arable land was being devoted to sugar cultivation, whereas other British West Indian islands such as Jamaica had long since been growing much more rapidly and would continue to do so. This resulted in Barbados representing an ever-shrinking proportion of the British Caribbean population and economy.[42] Concurrently, the rapid growth of sugar cultivation in Jamaica resulted in a huge demand for slaves that made slave prices higher there than in Barbados, causing slave traders to increasingly bypass Barbados.[43] This shortage of new slaves in Barbados helped precipitate a movement known as Amelioration which sought to improve the material conditions of slaves with some success, making Barbados the first British Caribbean sugar island to experience a natural rate of growth in its slave population.[44] Table 1, which does not even take into consideration the growth of the non-British West Indian sugar colonies such as Saint-Domingue, Cuba, Guadeloupe, Martinique, Louisiana and Suriname, clearly demonstrates that the

[40] McCusker and Menard*, The Economy of British America 1607-1789*, 153.
[41] *Ibid.*, 154.
[42] Menard, *Sweet Negotiations*, 11-48; McCusker and Menard, *The Economy of British America 1607-1789*, 153-154.
[43] For evidence of this trend see David Eltis and Martin Halbert, *Voyages: The Trans-Atlantic Slave Trade Database*, URL: <slavevoyages.org>.
[44] For more on Amelioration, see Ward, *British West Indian Slavery, 1750–1834*.

market of Barbadian sugar plantations was becoming increasingly squeezed by competitors which posed a serious threat to their long term prosperity.

Table 1. *Estimated Population of Barbados, 1630-1780 (in Thousands)*

Year	Whites	Blacks	Total	% Black	BWI	% Barbados
1630	1.8	0	1.8	0		
1640	14	0	14	0		
1650	30	12.8	42.8	30	59	72
1660	26.2	27.1	53.3	51	81	66
1670	22.4	40.4	62.8	64	96	65
1680	20.5	44.9	65.4	69	118	55
1690	17.9	47.8	65.7	73	135	49
1700	15.4	50.1	65.5	76	148	44
1710	13	52.3	65.3	80	178	37
1720	17.7	58.8	76.5	77	212	36
1730	18.2	65.3	83.5	78	258	32
1740	17.8	72.1	89.9	80	285	32
1750	17.2	78.8	96	82	330	29
1760	17.8	86.6	104.4	83	406	26
1770	17.2	92	109.2	84	479	23
1780	16.9	82.4	99.3	83	537	18

Source: Adapted from John J. McCusker and Russell Menard, *The Economy of British America 1607-1789* (Chapel Hill: University of North Carolina Press, 1985), 153-154.

Sugarcane (*Saccharum officinarum*) is a tall, strong species of grass native to the warm tropical regions of South Asia.[45] By the Middle Ages, the island of Sicily was the largest cultivator of sugarcane and it would endure as such until the adaptation of

[45] Bakker, *Sugar Cane Cultivation and Management*, 1; Deerr, *The History of Sugar Volume 1*, 1. Although relatively little is known about the earliest cultivation of sugarcane, there is botanical evidence to suggest that the practice began in New Guinea as early as 8000 BCE, however historical records on the subject date back to perhaps 400 BCE. Sugarcane was then brought from its home in Southeast Asia, westward to Persia, and was subsequently carried to the Eastern Mediterranean coast by Arab conquerors. In these early years, major centres of production included Palestine, and later Cyprus and Crete, and the cultivation process consistently exhibited a gradual but steady shift westwards. For more on the history of sugarcane, see Mintz, *Sweetness and Power*, 19-43; Galloway, *The Sugar Cane Industry*, 33-43.

the sugar complex to the Portuguese Atlantic.[46] The first royal grant for construction of a sugar mill in Portugal was recorded in 1404, and in 1420, Prince *Henrique o Navegador* appealed to Sicily for sugarcane cuttings and technical expertise.[47] The importation of sugarcane to the Iberian-controlled Atlantic Islands of the Canary Islands, Madeira, Cape Verde, São Tomé and Fernando Pó for cultivation can be seen as simply the next logical step in the continuous progression of the crop's migration westwards. [48] In this early period, however, far from being viewed as a European dietary staple and status symbol as it would later become, sugar was regarded more as an exotic spice and medical remedy.[49] The introduction process to Europe did, nonetheless, whet the appetite of the European elite for sugar, and sweetness in general, a heretofore relatively uncommon flavour in the European diet. From the Atlantic Islands, sugarcane spread westward to Brazil where it first flourished on a large scale before coming to Barbados.[50] Throughout this period, the growth of the Atlantic sugarcane plantation complex and of the transatlantic slave trade were remarkably interwoven and exhibited a symbiotic, mutually dependent relationship.

The general process of sugar production in the Atlantic world was relatively uniform and remained reasonably unchanged throughout much of the early modern period. In all cases, a field must cleared and cane holes dug so that sugarcane may be planted in a field, and with regular weeding, fertilising with dung and control of pests

[46] Galloway, *The Sugar Cane Industry*, 43.
[47] Mintz, *Sweetness and Power*, 29.
[48] Mintz, *Sweetness and Power*, 31-40; Stuart B Schwartz, *Sugar Plantations in the Formation of Brazilian Society*, (Chapel Hill: UNC Press 1985), 5-16.
[49] Mintz, *Sweetness and Power*, 31.
[50] *Ibid.*, 31-40.

and vermin, allowed to grow to maturity, before being harvested. Depending on the soil quality and climate, the first one, two or even three crops known as "ratoon cane" should be harvested without damaging the lower part of the plant so as yield a superior crop later on. At that point, the harvested stalks of cane must be crushed up repeatedly in a sugar mill, which may be wind, water or animal-powered, to extract and collect a sweet liquid known as cane juice. The cane juice must then be repeatedly subjected to a successive battery of boiling thermal processes and treated with wood ash, to concentrate the sucrose contained therein. Finally, the product must be purged and rendered into a nearly pure sucrose substance, though, along the way, by-products, including molasses which can be distilled into rum, and various grades of sugar are also recovered. Finally, sugar was packaged according to grade, and exported. This process is expensive, dangerous, labour intensive, technically complex, time-consuming and time-sensitive. It also requires a great deal of planning, coordination and capital investment, and benefits considerably from economy of scale due to its great reliance on technology and specialisation of labour.[51]

Newton, Seawell and Mount Alleyne plantations, like most other British West Indian sugar estates in the eighteenth century, operated a highly regimented labour regime known as gang labour. As Philip Gibbes, a prominent Barbadian planter, attorney and member of the Barbadian Society for the improvement of Plantership advised in 1797, echoing the earlier words of Edwin Lascelles and others, "One of the most

[51] Galloway, *The Sugar Cane Industry*, 88-110. For a modern technical rather than historical account, see Bakker, *Sugar Cane Cultivation and Management*.

important parts of management is a judicious division of Negroes into gangs."[52] By the late 1790s, Newton and Seawell shared a single plantation manager but each had an independent hierarchical labour structure that included a chief overseer, two suboverseers, a slave ranger and three slave drivers.[53] These elite slaves, along with the skilled workmen and artisans were known as "slaves with office" or "slave officers" and were often exempted from the drudgery of gang labour but not entirely from field labour altogether.[54] The field slaves on both plantations were divided into three distinct gangs known as the first, second and third gangs. Some larger plantations had a fourth gang but Newton and Seawell did not, although it sometimes had an additional subgang divided from the first one.[55] The first gang or "great gang" which was comprised of mature men and women, was sometimes subdivided by gender, and was consistently tasked with the most strenuous labour.[56] During "crop time" between January and May, the first gang cut cane, carted it to the mill and crushed it, and made sugar and rum in the boiling house and distillery. During the other months, the first gang tilled the fields, dug cane holes, planted canes and provision crops and collected and spread animal

[52] Philip Gibbes, *Instructions for the Treatment of Negroes,* 2nd edition (London: Shefferson and Reynolds, 1788), 69-70; Edwin Lascelles, et al*. Instructions for the Management of a Plantation in Barbadoes. And for the Treatment of Negroes* (London: [s.n.], 1786).
[53] Justin Roberts, "Working between the Lines, 558-559.
[54] Roberts, "Working between the Lines," 572; Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 75.
[55] Roberts, *Slavery and the* Enlightenment, 137-153; Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 72. This subgang was known as "Molly's gang" in the 1790s and was comprised of mostly older women.
[56] For more on the role of slave women in the British West Indies, see Hilary Beckles, *Natural Rebels: a Social History of Enslaved Black women in Barbados* (New Brunswick, N.J.: Rutgers University Press, 1989); Barbara Bush, *Slave Women in Caribbean Society, 1650-1838* (London: James Currey, 1990); Lucille Mathurin Mair, "Women Field Workers in Jamaica during Slavery," in Brian L. Moore, ed., *Slavery, Freedom and Gender: The Dynamics of Caribbean Society*, (Kingston, Jamaica: The University of the West Indies Press, 2001): 183–196.

dung.[57] The second gang, sometimes called the "little" or "young people gang," comprised adolescents and sometimes subdivided by gender. The second gang weeded the fields, planted provision crops and gathered cane trash during the harvest season. Additionally, during the out-of-crop season, skilled labourers such as the boatswain, distillers, boilers, clarifiers and clayers were also placed in the second gang, thus avoiding the most strenuous field labour, however they never avoided field labour entirely.[58] Finally, the third gang, alternatively known as the "children's," "meat pickers'," "hog meat" or "grass" gang, comprised small children between the ages of about five and twelve. This gang was employed almost exclusively with the task of gathering grass and other fodder for the plantation's livestock.[59]

The joint plantation manager of Newton and Seawell estates from 1795 until 1803 was a man named Sampson Wood. His tenure coincides with a significant increase in the number of correspondences, reports and censuses contained in the Newton Family Papers.[60] As a result, much of the qualitative primary evidence in this thesis is drawn from his letters and other writings. Relatively little biographical information is available in the records outside of his written correspondences, and the exact nature of his familial relationship with Sampson Wood, the Speaker of the House of Assembly of

[57] Roberts, *Slavery and the* Enlightenment, 131-132, Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 72.
[58] Roberts, "Working between the Lines," 572; Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 72-73. The boatswain is in charge of the operation of the sugarmill. The use of military and nautical labour terminology is significant theme, and a recurring feature on West Indian sugar plantations.
[59] Roberts, *Slavery and the* Enlightenment, 137-153; Handler and Lange, with Riordan, *Plantation Slavery in Barbados*, 74.
[60] See MS 523é270-520, Newton Family Papers.

Barbados from 1770-1772 and 1780-1787, is unclear.[61] Wood clearly conceptualised himself as a sort of enlightened patriarchal and paternalistic authority figure, claiming in a letter to the absentee plantation owner that "If I am lavish in anything, 'tis in my kindness to the poor Negroes... I treat them as a father yet preserve the strictest discipline."[62] He further declared "Go tell it to Saint Wilberforce! Your slaves are my family and my children... I think most of these people love me."[63] This tone is common throughout his writing, as will be seen in Chapters 3 and 4.

The story of the Newton family in Barbados, the original proprietors of Newton plantation and the eventual owners of Seawell and Mount Alleyne plantations, began in 1654. That year, Englishman Samuel Newton acquired several plots of land in the parish of Christ Church in southern Barbados, which were soon consolidated into two distinct Newton plantations.[64] By the 1670s, Samuel Newton had become one of the wealthiest planters in Barbados - a 1679 census declaring him to be the owner of 581 acres of land, 260 slaves and 16 white indentured servants.[65] In 1672 he became a member of the Barbados Council, the upper house of the Parliament of Barbados, where he continued to serve until his death in 1684. At this point the property passed to his wife Barbara,

---

[61] *The Barbados Parliament* <http://barbadosparliament.com/the_house_of_ assembly.php>.
[62] "Sam Wood to Thomas Lane," May 7, 1798, MS 523/340/1, Newton Family Papers. For the concepts of paternalism and patriarchy in slave studies, see Philip D. Morgan, *Slave Counterpoint: Black Culture in the Eighteenth-Century Chesapeake and Lowcountry* (Chapel Hill: University of North Carolina Press, 1998).
[63] "Sam Wood to Thomas Lane," October 19, 1798, MS 523/381/1, Newton Family Papers. This obviously refers to William Wilberforce the British Member of Parliament and leading abolitionist figure.
[64] Although the Newton Papers contain clear evidence of two separate Newton plantations in this early period, the earliest cartographic representation of this fact is Richard Forde's *A New Map of the Island of Barbadoes*, from 1675, which also interestingly portrays two Seawell plantations, at this point not owned by Newton. Newton Family Papers MS 523/1068, 1100; Micklem, *The Newton Papers*, iii; Handler and Lange with Riordan, *Plantation Slavery in Barbados*, 62.
[65] Handler and Lange with Riordan, *Plantation Slavery in Barbados*, 63.

who died in 1694, and his son John, who died in 1706, by which time the financial accounts suggest that there was only a single Newton plantation.[66] Upon John's death, the plantation passed to his son Samuel, and then to Samuel's son John, who would also inherit Seawell and Mount Alleyne plantations in 1740 by virtue of his marriage to Elizabeth Alleyne, a member of perhaps the wealthiest and most prominent family on the entire island.[67] When John died in 1783, the Newton and Seawell plantations, but not Mount Alleyne, came into the possession of his sisters Sarah Holte and Elizabeth Newton. After the deaths of the two sisters, the land passed, in 1794, to their cousins, John Lane, a barrister, and Thomas Lane, a solicitor, who both lived in London.[68] The plantations were jointly owned by the two brothers as absentee landlords until 1803, when Thomas became the sole owner of Newton, and John the sole owner of Seawell until their deaths in 1824. The average slave populations on each of these plantations were 254 for Newton, 183 for Seawell and 161 for Mount Alleyne. In relation to other plantations in Barbados, this puts Newton in the 98th percentile, Seawell the 80th, and

[66] Newton Family Papers MS 523/1; Micklem, *The Newton Papers*, iv; Handler and Lange with Riordan, *Plantation Slavery in Barbados*, 64.

[67] Abstract of Accounts, 1791 MS 523/84, 1795 MS 523/100, Newton Family Papers; Roberts, *Slavery and the Enlightenment*, 262; *The Barbados Parliament* <http://barbadosparliament.com/the_house_of_assembly.php>. Sir John Gay Alleyne (1724-1801) was an extremely important figure in Barbadian history. Elected to the Parliament of Barbados in 1757, he served for 40 years as a member and 10 as the Speaker of the House of Assembly of Barbados. He also served for a time as the attorney of Newton and Seawell plantations from 1791-1797, as well as at Turner's Hall. After his death, he was replaced as attorney for Newton and Seawell by Joshua Gittens. For more on the Alleyne family, see James C. Brandow, *Genealogies of Barbados Families* (Barbados: Geneaological Publishing Company, 1983), 34-46; William Betham, The Baronetage of England: Or The History of the English Baronets, and Such Baronets of Scotland, as are of English Families; with Genealogical Tables, and Engravings of Their Coats of Arms, Volume 3 (London: Burrell and Bransby, 1803), 350.

[68] Micklem, *The Newton Papers*, iv-v; Handler and Lange with Riordan, *Plantation Slavery in Barbados*, 64. For more on the Lane family, see Brandow, *Genealogies of Barbados Families*, 51-53.

Mount Alleyne the 60th percentile by size, as measured by slave population.[69] Newton operated two wind-powered mills while Seawell and Mount Alleyne each operated one. Their varying sizes and crop diversity profiles make them a reasonably representative sample of large absentee plantations in Barbados.[70] Nonetheless, this representativeness, combine with the exceptional detail of the annual account abstracts, makes this microeconomic case study particularly illuminating. It is important to acknowledge, however, that these three absentee plantations all had the same prominent attorney, himself a highly accomplished planter, whose commission of these highly detailed annual account abstracts perhaps represents a rigorous attention not present on all British West Indian absentee sugar plantations.

Chapter Two outlines the major historical themes with which this thesis interacts, explains its particular methodology and orients it within the context of the relevant historiographical debates. It explores the evolving scholarly interpretation of the relationship between slavery and capitalism and the effects that this has had upon slave studies. Next, it describes the history, characteristics, advantages and limitations of its explicitly quantitative methodology known as cliometrics or econometrics, and assesses the utility of, and reactions to this approach by examining two particular cases. Additionally, it examines the emergence of the so-called "Resistance Paradigm" within

[69] Handler and Lange with Riordan, *Plantation Slavery in Barbados*, 35.
[70] Handler and Lange with Riordan, *Plantation Slavery in Barbados*, 35; Abstract of Accounts, 1771-1815, MS 523/34-54, Newton Family Papers. Absentee plantership was actually less common in Barbados, accounting for about a third of plantations, than on other British West Indian sugar islands such as Jamaica, where it accounted for two thirds of plantations. For a historical description of absentee plantership, see Douglas Hall, “Absentee Proprietorship in the British West Indies, to about 1850,” *Jamaican Historical Review* 4 (1964): 15–35.

slave studies. Finally, the second chapter differentiates between the disparate nationalist slavery historiographies of the United States and the West Indies and suggests ways in which the microeconomic study of plantations as business histories may help reconcile them. [71]

Chapter Three examines the annual account abstracts of the Newton Family Papers and perform a rigorous financial analysis of Newton, Seawell and Mount Alleyne with regards to their revenues, productivity and commodity price fluctuations. Using quantitative methods, it traces the finances of each estate through an economically and politically tumultuous period in Atlantic world history, while simultaneously grounding this analysis in qualitative evidence such as the correspondences and reports of the absentee planters and plantation managers as well as prescriptive plantation literature, in order to place this microhistorical narrative in its broader macroeconomic and geopolitical context. Specifically, it identifies a clear trend of decreasing rum production on all three plantations, as well as a strong correlation between increased rum sale price and the outbreak of major Atlantic wars, which was considerably less pronounced for sugar. Sugar prices are also used, however, to tie these findings to the relevant secondary literature, particularly the work of David Beck Ryden and position them within the context of the so-called historiographical "Decline Thesis."[72] Chapter Three also devises a model based upon secondary literature to estimate the capital value of a

[71] These historiographical concepts will all be defined in the following chapter.
[72] The historiography of the Decline Thesis shall be examined in detail in the third chapter. It essentially postulates that after the American Revolutionary War, the British West Indian sugar production economy began an inexorable decline that eventually created the political and economic conditions necessary to permit British the abolition of the transatlantic slave trade.

plantation, and thereby also calculates annual profit over a run of years. It analyses these data and compares the profitability of Newton, Seawell and Mount Alleyne plantations to other sugar plantations and economic enterprises across the Atlantic world. Additionally, it discusses the use of such mathematical models to estimate capital value and profit and examines ways in which they may be improved. Finally, this chapter interacts with the historiography by asserting that these plantations remained relatively profitable and economically productive throughout this period, and directly refutes some of the secondary literature, particularly as it pertains to applicability of the Decline Thesis to Barbados. In this respect this thesis explicitly presents an anti-declensionist narrative of Barbadian sugar planting.

Chapter Four examines the expenditures of each plantation in detail and calculates the sources of and fluctuations in plantation debits over time. With regular reference to reports and correspondences, it considers the different categories into which these expenses were divided and the money spent thereon. It quantifies these changes over time and ties the discernible trends to the broader political and economic environment. Additionally, it analyses plantation provisioning and the diet of slaves. In particular, by performing a nutritional analysis of Newton's purchased provisions in conjunction with Kenneth Kiple's important work *The Caribbean Slave: A Biological History*, this chapter asserts that, contrary to what some of the secondary literature that portrays Barbados as a "foreign fed colony" might suggest, food purchased by Newton plantation only constituted a small fraction of the slaves' diet, and the plantation was in

fact a significant producer and even retailer of foodstuffs.[73] The fourth chapter also seeks to understand the labour hierarchy of free white workers on each plantation by examining the account abstracts in conjunction with the correspondences. With regular reference to the letters and reports written by the important historical actors such as the owners, manager, attorney and overseers, this chapter illuminates a surprisingly dynamic, flexible and fluid plantation management regime. It highlights the critical role played by familial and social relationships in obtaining and maintaining positions within this labour framework. Additionally, this chapter asserts that the labour hierarchy helped foster an internally competitive labour dynamic that potentially increased efficiency and profitability, which was particularly acute upon absentee plantations.

This plantation study is an economic institutional business history of a highly profitable, technologically sophisticated and productive enterprise in an intricately connected commercial Atlantic world. It also uses its econometric methodology as a window into social and labour history of both the oppressed African population that served as its primary inhabitants and workforce, and of the free white population that

[73] Kenneth F. Kiple, *The Caribbean Slave: A Biological History* (New York: Cambridge University Press, 1984). For the reputation as a "foreign fed colony," see Richard Dunn, *Sugar and Slave*s, xii, 67, 175; Arthur L. Stinchcombe, *Sugar Island Slavery in the Age of Enlightenment: The Political Economy of the Caribbean World* (Princeton, NJ: Princeton University Press, 1995), xiii, 52-53; David Beck Ryden, "Does Decline Make Sense? The West Indian Economy and the Abolition of the British Slave Trade," *Journal of Interdisciplinary History* 31.3 (2001): 347–374, 351; Sheridan, "The Crisis of Slave Subsistence in the British West Indies." The term originally comes from James Stephen, *The Slavery of the British West India Colonies Delineated, as it Exists Both in Law and Practice and Compared with the Slavery of Other Countries, Ancient and Modern*, Vol. 1 (New York: Kraus Reprint Co., 1969 [1824]), 94. For a contemporary refutation of Stephen, see Alexander Barclay, *A Practical View of the Present State of Slavery in the West Indies or, and Examination of Mr. Stephen's "Slavery of the British West India Colonies" Containing more Particularly an Account of the Actual Conditions of the Negroes in Jamaica* (London: Smith, Elder & Co., 1828).

constituted its management regime. More importantly, it is also an inquiry into the very nature of the plantation complex within the context of the Atlantic world. Sugar plantations can be rightly conceptualised in various different ways. Clearly, from any perspective, they were places of terribly harsh conditions, brutalising violence and dehumanising oppression. Additionally, they were proto-industrial "factories in the field" that pushed both their enslaved populations and their natural environments to the breaking point in the pursuit of profits.[74] Many contemporary authors, such as Patrick Kein, stressed the mechanistic nature of a plantation, characterising it as "a well constructed machine, compounded of various wheels turning different ways, and yet all contributing to the great end proposed."[75] However, what is often overlooked in the scholarship, which this thesis endeavours to highlight, is that they were also elaborate operations that at times exhibited a remarkable diversity of labour and production.[76] Finally, this thesis asserts that sugar plantations were dynamic nexuses of meticulous planning and innovation that exhibited and rationally applied many of the tenets of the Enlightenment and the scientific revolution.[77]

---

[74] For the "factories in the field" quotation, see Mintz, Sweetness and Power, xxiii, 21. Michael Tadman, "The Demographic Cost of Sugar: Debates on Slave Societies and Natural Increase in the Americas," American Historical Review 5.5 (2000): 1534; Dunn, Sugar and Slaves, xiv, 175-272; C. L. R. James, *The Black Jacobins: Toussaint L'Ouverture and the San Domingo Revolution*, 2d rev. ed. (New York, 1989), 6-11; Sheridan, *Sugar and Slavery*; Arthur L. Stinchcombe, Sugar Island Slavery in the Age of Enlightenment: The Political Economy of the Caribbean World (Princeton, N.J., 1995), 34-55.

[75] Kein, *An Essay upon Pen-Keeping and Plantership*, 58. Samuel Martin also uses the same metaphor in Martin, *An Essay upon Plantership*.

[76] Philip D. Morgan," Slaves and Livestock in Eighteenth- Century Jamaica: Vineyard Pen, 1750-1751," *William and Mary Quarterly* 3.52 (1995): 47-76; Verene A. Shepherd, "Diversity in Caribbean Economy and Society from the Seventeenth to the Nineteenth Centuries," *Plantation Society in the Americas* 5.2 (1998): 175-187.

[77] Roberts, *Slavery and the Enlightenment*, 26-160; Justin Roberts, "Sunup to sundown: plantation management strategies and slave work routines in Barbados, Jamaica and Virginia, 1776–1810," Ph.D. dissertation (Baltimore: Johns Hopkins University, 2008); Eric Otremba, "Enlightened Institutions: Science,

This thesis argues that Barbadian planters, plantation managers and overseers made calculated decisions in response to the ever-changing economic and political circumstances which they faced that often wrought untold hardships upon the labouring slave populations. However, far from being a passive, faceless, homogeneous group, the slave labour force constituted an active and dynamic slave society that significantly shaped the trajectory of Barbadian and Caribbean history and culture. Newton, Seawell and Mount Alleyne plantations were lucrative capitalist enterprises that chiefly generated a staple crop, sugar, for export to a foreign market with a production regime predicated upon the exploitation of coerced labour in the form of enslaved human beings of African descent. That these sugar estates were able to maintain such profits over an extended period of time is testament to the seemingly insatiable European demand for staple crops such as sugar, the shrewd and flexible plantation management of the planters, the unthinkably gruelling and harsh labour performed by the plantations' slaves, and the sobering, brutal efficiency of the Atlantic world sugar plantation complex.

Plantations and Slavery," Ph.D. dissertation (Minneapolis: University of Minnesota, 2012); Eric Otremba, "Inventing ingenios: experimental philosophy and the secret sugar-makers of the seventeenth-century Atlantic," *History and Technology* 28.2 (2012): 119-147; Joel Mokyr, *The Enlightened Economy: An Economic History of Britain 1700–1850* (New Haven: Yale University Press, 2009); Caitlin Rosenthal, "From Slavery to Scientific Management: Counting and Accounting in America, 1750–1900," PhD dissertation (Cambridge: Harvard University, 2012).

CHAPTER 2 - CAPITALISM AND CLIOMETRICS: A HISTORIOGRAPHICAL LITERATURE REVIEW OF SLAVERY SCHOLARSHIP

The precise nature of the relationship between capitalism and slavery within early America and Atlantic world has consistently been a subject of considerable academic debate amongst historians and economists for generations. Scholars still disagree on how to label an economic system in which slaveholders, who often presented themselves as neo-feudalist and market-averse paternalists, were nonetheless able to concentrate massive amounts of capital, produce extremely profitable export crops and transform human beings into economic commodities.[1] Adam Smith articulated the incompatibility of the two concepts by stressing the inherent inferiority and inefficiency of slave labour relative to free labour within in a free market economic framework.[2] In the West Indian context, Eric Williams's groundbreaking work *Slavery and Capitalism* reconceptualised the relationship between these institutions and argued that while the two were not mutually exclusive, and capitalism in fact exploited slave labour to a great degree, the success of capitalism and

[1] For a thorough historiographical review of the relationship between slavery and capitalism in early America, see Seth Rockman, "The Future of Civil War Era Studies: Slavery and Capitalism," *Journal of the Civil War Era*, 2.1 (2012) URL: http://journalofthecivilwarera.com/forum-the-future-of-civil-war-era-studies/the-future-of-civil-war-era-studies-slavery-and-capitalism; Anthony Kaye, "The Second Slavery: Modernity in the Nineteenth-Century South and the Atlantic World," *Journal of Southern History* 75 (2009): 627–50; Robert William Fogel, *The Slavery Debates: A Retrospective, 1952–1990* (Baton Rouge: Louisiana State University Press, 2003).

[2] Adam Smith, *An Inquiry Into the Nature and Causes of the Wealth of Nations* (New York: The Modern Library, 1937 [1776]), 80-81.

the industrial revolution eventually contributed to slavery's demise.[3] Although Williams's seminal work constituted a novel analysis of the relationship between capitalism and slavery, its Marxist and post-colonialist theoretical underpinnings eschewed rigorous examination of quantitative evidence.[4]

In the American context, evolving scholarly conceptions of the relationship between plantation slavery and capitalism culminated in the so-called Genovese-Oakes debate. Eugene Genovese stressed an ideology among planters that rejected commerce and the marketplace as the determinant factor of social relations whereas James Oakes emphasised the primacy of liberal private property rights to the success of the slaveholding regime.[5] Despite these theoretical divergences, much of the most empirically-based scholarship was kept curiously and conspicuously absent from this debate.[6] Later, the issue became further complicated as the prominence of a "market revolution" in the slave economy of the South was debated by the likes of Harry Watson

[3] Eric Williams, *Capitalism & Slavery* (London: A. Deutsch, 1993 [1944]).
[4] For a numerical critique of Williams's evidence see Seymour Drescher, *Econocide: British Slavery in the Era of Abolition* (Pittsburgh, PA: University of Pittsburgh Press, 1977), 3-14.
[5] Rockman, "The Future of Civil War Era Studies: Slavery and Capitalism," 2; Eugene D. Genovese, *The Political Economy of Slavery: Studies in the Economy and Society of the Slave South* (New York: Pantheon, 1965); Eugene D. Genovese, *The World the Slaveholders Made: Two Essays in Interpretation* (New York: Pantheon, 1969); Eugene D. Genovese and Elizabeth Fox-Genovese, *Fruits of Merchant Capital: Slavery and Bourgeois Property in the Rise and Expansion of Capitalism* (New York: Oxford University Press, 1983); James Oakes, *The Ruling Race: A History of American Slaveholders* (New York: Knopf, 1982); James Oakes, *Slavery and Freedom: An Interpretation of the Old South* (New York: Knopf, 1990).
[6] Rockman, "The Future of Civil War Era Studies: Slavery and Capitalism," 3. For some of this empirical scholarship of slavery in the American South by economic historians, see Harold D. Woodman, *King Cotton and His Retainers: Financing and Marketing the Cotton Crop of the South, 1800–1925* (Lexington: University of Kentucky Press, 1968); Robert William Fogel and Stanley L. Engerman, *Time on the Cross: The Economics of American Negro Slavery* (Boston: Little, Brown, 1974); Gavin Wright, *Political Economy of the Cotton South: Households, Markets, and Wealth in the Nineteenth Century* (New York: Norton, 1978).

and Douglas Egerton.[7] Significantly, Dale Tomich has also somewhat redefined this debate with his concept of a "second slavery," used to describe an increasingly industrialised variety of slave agriculture that generated massive, unprecedented profits during the era of emancipation in the Atlantic World.[8] A vast array of historical monographs have examined the contours of slavery and capitalism, written by scholars from a variety of different theoretical and ideological perspectives.[9] While the intensity of this debate has somewhat subsided, some scholars still assert the non-capitalist nature of slavery, such as Tom Cutterham, who stated in a 2014 book review that "At the heart of both systems is the relationship between labour and capital; yet for slave-owners, labour is capital, and that makes all the difference."[10] However, this narrow debate about the relationship between capitalism and slavery has become dominated by the American context (and cotton plantations in the Antebellum American South in

[7] For an account of a Southern market revolution and "dual economy," see Harry L. Watson, “Slavery and Development in a Dual Economy: The South and the Market Revolution,” in *The Market Revolution in America: Social, Political, and Religious Expressions, 1800–1880*, in Melvyn Stokes and Stephen Conway, eds. (Charlottesville: University of Virginia Press, 1996), 43–73. For a counterpoint, see Douglas R. Egerton, “Markets without a Market Revolution: Southern Planters and Capitalism,” *Journal of the Early Republic* 16 (Summer 1996): 210.

[8] Kaye, “The Second Slavery," 627; Rockman, "The Future of Civil War Era Studies: Slavery and Capitalism," 2; Dale W. Tomich, *Through the Prism of Slavery: Labor, Capital, and World Economy* (Lanham, Md.: Rowman and Littlefield, 2004).

[9] Mark M. Smith, *Mastered by the Clock: Time, Slavery, and Freedom in the American South* (Chapel Hill: University of North Carolina Press, 1997); Walter Johnson, *River of Dark Dreams: Slavery and Empire in the Cotton Kingdom* (New York Belknap Press, 2013); Josh Rothman, *Flush Times and Fever Dreams: A Story of the Capitalism and Slavery in the Age of Jackson* (Athens: University of Georgia Press, 2012); Edward Baptist, *The Half Has Never Been Told: Slavery and the Making of American Capitalism* (New York: Basic Books, 2014); Thomas L. Haskell, “Capitalism and the Origins of the Humanitarian Sensibility, Part 1,” *American Historical Review* 90.2 (1985): 331–362; Caitlin Rosenthal, "From Slavery to Scientific Management: Counting and Accounting in America, 1750–1900,” PhD dissertation (Cambridge: Harvard University, 2012); Edward Baptist, "Toxic Debt, Liar Loans, Collateralized and Securtized Human Beings, and the Panic of 1837" in Michael Zakim and Gary J. Kornblith, *Capitalism Takes Command* (Chicago, University of Chicago Press, 2011): 69-92.

[10] Tom Cutterham, "Factories in the Field," review of Justin Roberts, *Slavery and the Enlightenment in the British Atlantic, 1750-1807*, *The Oxonian Review* 25.4 (2014), URL: http://www.oxonianreview.org/wp/factories-in-the-field/.

particular) and does not occupy the same position of prominence in the West Indian historiographical tradition. This exemplifies how the American and West Indian historiographies are often remarkably isolated from one another when it comes to the narrative of slavery.

Ultimately, the determination of whether or not slave societies were capitalist is largely dependent on one's definition of capitalism and slavery. If wage labour is considered to be an absolute precondition of capitalism then slavery would be non-capitalist, whereas if capitalism is defined simply as the application of commodified labour to produce export goods in a market economy based upon private property, then a slave society surely could be capitalist.[11] This process has the effect of being dependent upon one's academic definition of capitalism that is based in modern (and often Marxist) theory, rather than on a rigorous, empirical examination of the social and economic characteristics of a slaveholding society. As Walter Johnson observed, "it is, after all, this intellectual tradition that has most actively kept alive the idea that when you talk about 'capitalism' and 'slavery' you are talking about two things, rather than one."[12] For the purposes of this thesis, capitalism shall be defined by the Oxford Dictionary definition as "an economic and political system in which a country's trade and industry are controlled by private owners for profit, rather than by the state."[13] This thesis contends that far from being inimical with capitalism and progress, the slave

[11] Rockman, The Future of Civil War Era Studies: Slavery and Capitalism," 3.
[12] Walter Johnson, "The Pedestal and the Veil: Rethinking the Capitalism/Slavery Question," *Journal of the Early Republic* 24 (2004): 300.
[13] "Capitalism," *Oxford Dictionaries*. URL: http://www.oxforddictionaries.com/definition/english/capitalism?q=capitalism.

labour regime was actually remarkably compatible with many of the tenets of capitalism and economic improvement. Furthermore, the strict control inherent in the coerced labour system was capable of fostering a high degree of specialisation and division of skilled labour. However, this thesis also seeks to transcend this archaic theoretical debate and ask different questions about the economics of plantation slavery with an explicitly numerical and quantitative methodology, that some scholars associate with the cliometric approach to slave studies.

This microeconomic analytical case study of Barbadian sugar plantation management seeks to rigorously and explicitly apply a particular empirically-driven quantitative methodology known variously as new economic history, econometric history or, now somewhat infamously, cliometrics. The term cliometrics was coined by the renowned economist Stanley Reiter in 1960, named for *Clio*, the ancient Greek muse of history. It deliberately and consciously eschews social, cultural, qualitative and ethnographical data in favour of concrete, statistical and numerical evidence, even when making what are ultimately cultural and social arguments, and seeks to analyse and interpret the data using advanced mathematical, statistical and economic models in novel ways.[14] Cliometric methodologies have been applied to several detailed studies of

[14] Claudia Goldin, "Cliometrics and the Nobel," *The Journal of Economic Perspectives* 9 (1995): 191-208, 191; Robert Fogel, "New Economic History: Its Findings and Methods," *The Economic History Review* 19 (1966): 642-656. For more background on the history, objectives, limitations and methodology of new economic history, see Peter Temin, editor. *New Economic History* (Middlesex: Penguin Books, 1973); Jeremy Atack and Peter Passel, *A New Economic View of American History*, second edition (New York and London: W.W. Norton, 1994).

various historical topics such as agriculture, industry and transportation.[15] However, it is undoubtedly the historical study of slavery where cliometric analysis has been not only most rigorous and thorough in its academic application, but also most contested and controversial in its arguments. Most scholars agree that the intellectual foundations of the so-called "cliometric revolution" were laid with the famous 1958 article "The Economics of Slavery in the Antebellum South" by Alfred Conrad and John Meyer.[16] Despite its utility, however, there have also been serious criticisms levelled at cliometrics both by cultural and social historians, and by economists and economic historians as well. Economist Claudia Goldin, for example, has claimed that the cliometric revolution had the counterintuitive effect of divorcing history departments from economics departments and that "the new economic historians extinguished the other side."[17] Social historians on the other hand have, broadly speaking, criticised cliometrics for overly monocausal, deterministic explanations and dehumanising empiricism.[18] Cliometrics quickly became associated with, among others, Robert Fogel and Cecil North, who eventually, were jointly awarded the Nobel Prize for Economics in 1993.[19] For slavery historians, however, Robert Fogel's name is much more recognisable

[15] For diverse cliometric studies of agriculture and industry, see Temin, *Economic History*; Robert W. Fogel, and Stanley L. Engerman, editors *The Reinterpretation of American Economic History* (New York: Harper & Row Publisher Inc., 1971). For the earlier examples of the application of cliometric methodology to transportation history by one of the authors of *Time on the Cross*, see Robert William Fogel, *The Union Pacific Railroad: A Case in Premature Enterprise*, in *Johns Hopkins University Studies in Historical and Political Science* 78.2 (Baltimore: Johns Hopkins University Press, 1960); Robert William Fogel, *Railroads and American Economic Growth: Essays in Econometric History* (Baltimore: Johns Hopkins University Press, 1964).
[16] Alfred Conrad and John Meyer, "The Economics of Slavery in the Antebellum South," *Journal of Political Economy* 66 (1958): 95-130; Goldin, "Cliometrics and the Nobel," 192.
[17] Goldin, "Cliometrics and the Nobel," 206.
[18] Fogel, "New Economic History," 642-656.
[19] Goldin, "Cliometrics and the Nobel," 191.

for his highly anticipated and groundbreaking, but also hotly contested and immensely controversial work that he co-authored in 1974 with Stanley L. Engerman, *Time on the Cross: The Economics of American Negro Slavery*.[20]

Time on the Cross sought to numerically quantify and statistically illuminate many aspects of slavery and slave life in the antebellum American South and it ultimately postulated ten specific conclusions.[21] These arguments challenged the majority of historical scholarship by such slavery historians as Ulrich Bonnell Phillips, Kenneth Stampp, Stanley Elkins and Eugene Genovese, but also ran very contrary to the standard popular narrative about slavery in the broader, non-academic culture.[22] Despite generating an unprecedentedly high profile in popular culture and mass media for a scholarly work of American economic history, and receiving some very enthusiastic praise and positive reviews early on by the likes of Peter Passel and Stephan Thernstrom, *Time on the Cross* soon began to see significant academic challenges

[20] Fogel and Engerman, *Time on the Cross*.
[21] Fogel and Engerman, *Time on the Cross,* 4-6. These ten postulates may be briefly summarised as follows: 1. Slavery was neither irrational nor unprofitable 2. Slave was not economically moribund or declining by the American Civil War. 3. Slaveowners were prosperous and optimistic about slavery's continuation. 4. Slave agriculture was not inefficient compared with free agriculture. 5. The typical slave field hand was not lazy, inept, and unproductive. On average he was harder-working and more efficient than his white counterpart. 6. Slavery was not incompatible with industrialisation or an urban setting 7. Slavery did not destroy the black family and slave families were typically stable. 8. The material (not psychological) conditions of the lives of slaves compared favorably with those of free industrial workers. 9. Over the course of his lifetime, the typical slave field hand received about 90 percent of the income he produced. 10. Far from stagnating, the economy of the antebellum South grew quite rapidly.
[22] Ulrich B. Phillips, "The Decadence of the Plantation System," *Annals of the American Academy of Political and Social Sciences* 35 (1): 37–41. 1910; Ulrich B. Phillips, *American Negro Slavery; a Survey of the Supply, Employment, and Control of Negro Labor, as Determined by the Plantation Regime* (Gloucester, Mass.: Peter Smith, 1918); Kenneth Stampp, *The Peculiar Institution: Slavery in the Antebellum South*, (New York: Alfred Knopf, 1956); Stanley Elkins and Eric McKitrick, "Institutions and the Law of Slavery: Slavery in Capitalist and Non-Capitalist Cultures," *American Quarterly* 9 (Summer, 1957): 159–179; Stanley Elkins, *Slavery: A Problem in American Institutional and Intellectual Life* (Chicago: University of Chicago Press, 1959); Genovese, *The Political Economy of Slavery*; Genovese, *The World the Slaveholders Made*; Fogel and Engerman, *Time on the Cross*, 223-224.

mounted against it from many different directions.[23] Some of the more controversial, revisionist assertions in *Time on the Cross*, published just ten years after the transformative Civil Rights Act of 1964, did not sit well with many observers, particularly in the Civil Rights Movement.[24] Before long, it was facing a slew of criticism and negative attention from many different directions, questioning the authors' assertions, conclusions, use of evidence, methodology, tone and motives.[25]

These criticisms and negative reviews originated from three major discernible groups, activists in the Civil Rights Movement such as Brenda L. Jones who found *Time on the Cross* offensive, social and cultural historians such as Herbert Gutman and Kenneth Stampp who resented its dehumanising empiricism, and fellow economic historians and cliometricians such as Paul David, Richard Sutch, Peter Temin and Gavin Wright who questioned its methodology and feared the backlash that it could provoke against economic slavery studies.[26] Within a few years, it had been reviewed so harshly and systematically in so many forums, that some believed it to have become a thoroughly discredited work that should never be cited or even mentioned.[27] Criticisms

---

[23] Thomas Haskell, "The True and Tragical History of 'Time on the Cross,'" *The New York Review of Books* (October, 1975): 33; Peter Passel, "An Economic Analysis of that Peculiarly Economic Institution," *New York Times Book Review* (April 28, 1974): 4.
[24] Haskell, "The True and Tragical History of 'Time on the Cross,'" 492.
[25] *Ibid.*
[26] Brenda L. Jones, "Time on the Cross: A Rallying Cry for Racists," *Freedomways* 15 (1975): 26-33; Herbert Gutman, *Slavery and the Numbers Game: A Critique of Time on the Cross* (Urbana: University of Illinois Press, 1975); Kenneth Stampp, "Introduction: A Humanistic Perspective," in David et al, editors, *Reckoning With Slavery: Critical Essays in the Quantitative History of American Negro Slavery*, (New York: Oxford University Press, 1976); Paul David et al, editors, *Reckoning With Slavery: Critical Essays in the Quantitative History of American Negro Slavery*, (New York: Oxford University Press, 1976); Paul David and Peter Temin, "Slavery: The Progressive Institution?," *Journal of Economic History* 34. 3 (1974): 739-83; Paul David and Peter Temin, "Explaining the Relative Efficiency of Slave Agriculture in the Antebellum South: A Comment," *American Economic Review* 69 (1979): 213-18.
[27] Haskell, "The True and Tragical History of 'Time on the Cross,'" 492.

that were levelled against *Time on the Cross* ranged from an ahistorical and myopic outlook to a flawed methodology, from cherry-picking of data and misuse of evidence, to downright racism, with Brenda L. Jones going so far as declare it to be "a rallying cry for racists," and its authors, "agents of the sickness of white supremacy."[28] The arguments in *Time on the Cross* were further complicated by the fact that its authors included no notes or citations whatsoever regarding their extensive and complex data and methodology preferring instead to publish all of this separately in a much lengthier, though understandably less available volume known as *Time on the Cross: Evidence and Methods*.[29] The relative inaccessibility of the methodology and raw data associated with Fogel and Engerman's research served to further compound its negative.[30]

Some more recent examples of academic scholarship regarding the history of slavery have been able to largely avoid the stigma and pitfalls associated with *Time on the Cross* while nonetheless employing a similarly explicit focus on empirical and quantitative evidence alone. One such case is the ambitious compilation *Voyages: The Trans-Atlantic Slave Trade Database* championed by David Eltis with various other collaborators, which sought to empirically estimate the absolute scale as well as many

[28] Gutman, *Slavery and the Numbers Game*; David et al, *Reckoning with Slavery*; Thomas Haskell, "Were Slaves More Efficient? Some Doubts about 'Time on the Cross,'" *New York Review of Books* (September, 1974): 38-42; Haskell, "The True and Tragical History of 'Time on the Cross'"; Gary Walton, "A Symposium on *Time on the Cross*," *Explorations in Economic History* 12 (1975): 333-334; Jones, "Time on the Cross: A Rallying Cry for Racists," 32-33; Stefano Fenoaltea, "The Slavery Debates: A Note from the Sidelines," *Explorations in Economic History* 18 (1981): 304-308; Thomas Weiss, "Review of 'Time on the Cross,'" *Project 2001: Significant Works in Economic History,* EH.net (Economic History.net), September 2001; David and Temin, "Slavery: The Progressive Institution?"; David and Temin, "Explaining the Relative Efficiency of Slave Agriculture."

[29] Robert Fogel and Stanley Engerman, *Time on the Cross: Evidence and Methods* (Boston: Little, Brown and Company, 1974).

[30] Haskell, "The True and Tragical History of 'Time on the Cross,'" 492.

of the features and dimension of the transatlantic slave trade by tabulating the numbers and statistics contained in the relevant primary source material.[31] The database relies upon records from over 27 000 distinct transatlantic slaving voyages, which the creators estimate to represent about 80% of the historical number of voyages, thus tentatively approximated to be about 35 000 in total.[32] Through further estimation and extrapolation, the database places the number of slaves embarked in Africa at 12.5 million and the number of slaves disembarked in the Americas at 10.7, the corresponding 1.8 million fatalities thus representing a mortality rate of approximately 14.4%, conspicuously lower than many previous estimates.[33] While various other less methodologically rigorous studies had arrived at reasonably comparable numbers pertaining to the absolute scale of the trade, the exhaustively thorough nature of the *Slave Trade Database* rendered other more divergent claims that were not substantiated by comparable empirical evidence increasingly untenable.[34] Furthermore, while *The Slave Trade Database* nonetheless relied substantially upon a certain degree of estimation and extrapolation, Eltis et al. were very upfront about this reality in the

[31] This remarkably ambitious project and the wealth of research included therein exist in several distinct forms. For the website, see David Eltis and Martin Halbert, *Voyages: The Trans-Atlantic Slave Trade Database*, URL: <slavevoyages.org>; for the CD-ROM, see David Eltis, Stephen D. Behrendt, David Richardson and Herbert S. Klein, editors, *The Trans-Atlantic Slave Trade: A Database on CD-ROM* (Cambridge: Cambridge University Press, 1999); for the published atlas, see David Eltis and David Richardson, *Atlas of the Transatlantic Slave Trade* (New Haven: Yale University Press, 2010). The CD-Rom is an earlier version.

[32] Eltis et al., *Voyages: The Trans-Atlantic Slave Trade Database*.

[33] Justin Roberts, *Slavery Counted, Slavery Defined and Slavery Online*, (review no. 964) URL: http://www.history.ac.uk/reviews/review/964; Eltis et al., *Voyages: The Trans-Atlantic Slave Trade Database*.

[34] For other estimates, see John Thornton, *Africa and Africans in the Making of the Atlantic World, 1400–1800,* (New York: Cambridge University Press, 1998); Milton Meltzer, *Slavery: A World History*, (New York: Da Capo Press, 1993); Philip Curtin, *Atlantic Slave Trade*, (University of Wisconsin Press, 1969).

presentation of the data and the potential limitations that came with it.[35] Finally, as if in anticipation of the social historian's critique, *The Slave Trade Database* also included a highly interactive database of over 90 000 individual African slaves who made the voyage with easily sortable data points such as name, height, age and country of origin, as well as three narrative vignettes of slaves who survived the horrors of the Middle Passage in an effort to humanise the slaves as much as possible and portray them as individual human beings rather than simply faceless numbers.[36]

The Slave Trade Database was, generally speaking, very well received and positively reviewed, with an entire edition of the *William and Mary Quarterly*, the preeminent journal in early American history, essentially devoted to it.[37] It was not completely without its detractors however. Some slavery historians such as Toby Green have voiced some skepticism about the utility and reliability of empirical data in the study of the transatlantic slave trade in general.[38] Additionally, Marcus Rediker's highly anticipated work *The Slave Ship: A Human History* can be interpreted as something of a cultural historian's rejoinder, albeit from a Marxist perspective, to the privileging of statistical data over human narratives and individuals' lived experiences that was

---

[35] Eltis et al., *Voyages: The Trans-Atlantic Slave Trade Database*; Justin Roberts, *Slavery Counted, Slavery Defined and Slavery Online.*

[36] These data were eventually compiled into a separate interactive online database called African Origins. See David Eltis and Martin Halbert, *African Origins*, URL: <african-origins.org>. The country of origin metric is somewhat problematic as it relies heavily upon extremely generalised racialising European notions of African ethnicity as it pertained to their point of embarkation from African.

[37] Roberts, *Slavery Counted, Slavery Defined and Slavery Online*; Stephanie E. Smallwood, review of David Eltis, Stephen D. Behrendt, David Richardson, and Herbert S. Klein, eds., *The Trans-Atlantic Slave Trade: A Database on CD-ROM* (Cambridge: Cambridge University Press, 1999), *William and Mary Quarterly* 58 (2001), 253-61.

[38] Toby Green, *The Rise of the Trans-Atlantic Slave Trade in Western Africa, 1300-1589* (Cambridge: Cambridge University Press, 2011).

necessarily inherent in the methodology of *The Slave Trade Database*.[39] Finally, despite Eltis's attempt to appeal to a broader audience with the African slave names database and the narrative vignettes, one reviewer remarked that the gesture "comes off as tokenism."[40] These issues aside, the visibility and accessibility of its raw data and methodology, its tempered, nuanced and prudent claims, and its overt appeal to non-economic historians made *The Slave Trade Database* a more effective and palatable work of historical scholarship than its much-maligned cliometric forebear, *Time on the Cross*.

Although the furor of that specific case has somewhat abated, the charge of dehumanising empiricism is still often levelled at cliometrically-minded economic historians by cultural and social scholars of slavery. However, it is important to note that as is the case with the capitalism vs. slavery debate, such reactions are much more commonly found in the study of American slavery when compared to its the Caribbean tradition, where numbers-heavy work tends to be more willingly accepted.[41] Perhaps the most prominent cases of cliometric slave studies in the Caribbean context by B.W. Higman did not elicit such a hostile domestic reaction.[42] This thesis shall use the term econometric history rather than cliometrics because it is more literally accurate, and although explicitly grounded intellectually in this methodology, it shall make an effort to

[39] Marcus Rediker, *The Slave Ship: A Human History* (New York: Viking Press, 2007); Roberts, *Slavery Counted, Slavery Defined and Slavery Online.*
[40] Roberts *Slavery Counted, Slavery Defined and Slavery Online.*
[41] Haskell, "The True and Tragical History of 'Time on the Cross,'" 492.
[42] B. W. Higman, *Slave Populations of the British Caribbean, 1807–1834* (Baltimore: Johns Hopkins University Press, 1984); B.W. Higman, *Slave Population and Economy in Jamaica, 1807–1834* (New York: Cambridge University Press, 1977).

delicately straddle this fine line by statistically quantifying the lives and labours of hundreds of human beings, without implicitly denying them their humanity or agency. It shall strive to read between the lines while interpreting the numbers, and soberly acknowledge what conclusions can and cannot be realistically drawn from quantitative data alone. In doing so, it shall hopefully avoid some of the pitfalls of work that is overly reliant upon econometric methodology alone. It must be stated however, that despite some errors in presentation, the thorough research and unapologetically numerical approach of Fogel and Engerman's *Time on the Cross*, as well as the majority of its conclusions, have proved remarkably enduring.[43] This thesis hopes to contribute to a growing body of literature in slave studies that demonstrates that quantitative history, driven by a statistical methodology and operating within an empirical framework, far from being opposed or antithetical to the subjective, theoretical foundations of social and cultural history, is in fact a fundamental cornerstone of it, especially for such emotive topics as the historical study of slavery. Indeed, the two must operate mutually and symbiotically if either is to effectively seek historical truth.

In fact, the application of econometric analysis to the study of slavery has been critical in dispelling some of the myths pertaining to American slavery. Perhaps the most lasting accomplishment of *Time on the Cross* was dismissing the inherently declensionist

[43] Robert Whaples, "Where Is There Consensus Among American Economic Historians?" *Journal of Economic History*, 55 (1995): 139-147. This article conducted a survey of members of the Economic History Association and concluded that 48% "agreed" and another 24% "agreed with provisos" with Fogel and Engerman's argument that "slave agriculture was efficient compared with free agriculture." In addition, 23% "agreed" and 35% "agreed with provisos" with their argument that "the material (rather than psychological) conditions of the lives of slaves compared favorably with those of free industrial workers in the decades before the Civil War.

narrative of an economically stagnant antebellum South which was ostensibly underdeveloped, industrially, technologically and financially, by the inefficient and hidebound institution of plantation slavery.[44] This story of inexorable economic decline of slavery in the American context is paralleled quite closely in the West Indian context by the "Decline Thesis," which alleges a collapsing British Caribbean plantation economy beginning nearly a century earlier, as shall be examined in the following chapter. This thesis, a microeconomic plantation case study, will use quantitative methods to explicitly refute an established economically declensionist slavery narrative, not unlike *Time on the Cross* itself. Given the similarity of these two analogous narratives of declension, both of which are predicated to some degree upon the inefficiency of slavery as an economic system, it is surprising that the American and West Indian historical literatures regarding this decline (both for and against) have remained so disconnected.

Even before the so-called "cliometric revolution," however, quantitative history in slave studies was responsible for correcting some of the earlier caricatured, over-generalised, and in some cases openly racist, notions in the historical literature pertaining to the "peculiar institution." Its empirical focus helped dispose of the depiction, of slavery in the Antebellum South, by the likes of Ulrich Phillips and H.J. Eckenrode, as a benign and even benevolent institution that endured into the mid-

[44] Fogel and Engerman, *Time on the Cross,* 4-6; Phillips, "The Decadence of the Plantation System," 37-41; Phillips, *American Negro Slavery*.

twentieth century.[45] However, in the 1960s, partly in opposition to Stanley Elkins who asserted that slaves were largely passive victims and that African-American culture was destroyed by slavery, another theoretical conception of slavery arose which sought to constantly highlight slave agency through perpetual resistance as the central component of the slave narrative.[46] While it was also critical in dispelling the archaic assertions about slavery by Phillips, Eckenrode and others, such efforts also proved susceptible to exaggeration, politicisation and romanticisation. This conceptualisation of slavery, which came to be known as the "Resistance Paradigm," became closely linked academically with the ascendant field of subaltern studies, and linked politically with the ongoing Civil Rights Movement in the United States. It explicitly characterised many diverse aspects and events regarding slave life, such as the persistence of African traditions and slave culture, runaway slaves and shirking of labour, low productivity or poor plantation profits, or the destruction of tools and property, all as different forms of deliberate and organised resistance against slavery.[47] it In this respect, slaves were to

---

[45] H.J. Eckenrode, "Negroes in Richmond in 1864," *Virginia Magazine of History and Biography* 46.3 (1938): 193-200; Phillips, "The Decadence of the Plantation System," 37-41; Phillips, *American Negro Slavery*, 261-343. For more on the lingering effects of this interpretation, see Peter J. Parish*, Slavery: History and Historians* (New York: Harper & Row Publishers, 1989), 6-7.

[46] For Elkins's interpretation, see Elkins, *Slavery: A Problem in American Institutional and Intellectual Life*, 223. A few historians such as Herbert Aptheker and Melville J. Herscovits had stressed slave resistance in the 1940s prior to Elkins. For more on them see Robert L. Paquette, "Social History Update: Slave Resistance and Social History," *Journal of Social History* 24.3 (1991): 681-685.

[47] Eugene D. Genovese, *Roll Jordan Roll: The World the Slaves Made* (New York: Vintage Books, 1974); Herbert Gutman, *The Black Family in Slavery and Freedom, 1750-1925* (New York: Vintage Books, 1977); John Blassingame, The Slave Community: Plantation Life in the Antebellum South (New York: Oxford University Press, 1979); Nathan Huggins, "The Deforming Mirror of Truth: Slavery and the Master Narrative of American History," *Radical History Review* 69 (1991): 25-46, 33; Michael Mullin, *Africa in America: Slave Acculturation and Resistance in the American South and the British Caribbean, 1736-1831* (Chicago: University of Illinois Press, 1992); Robert L. Douglas, "Myth or True: A White and Black View of Slavery," *Journal of Black Studies* 19.3 (1989): 343-360. For a historiographical overview, see Robert William Fogel, *Without Consent or Contract: The Rise and Fall of American Slavery* (New York: Norton, 1989), 154-198.

some extent cast ahistorically as political actors with the ideological dispositions of modern scholars retroactively imposed upon them.

While the Resistance Paradigm has been important in humanising and restoring agency to the enslaved, it is limited in its ability to ask broader and more complicated questions about the diverse motivations and choices of slaves, particular as it pertains to their vital role as the productive labour in a profitable Atlantic world business. This singular preoccupation with casting everything done by slaves as some form of conscious, systematic resistance caused Sidney Mintz to counter that "only a tiny fraction of daily life consisted of open resistance. Instead most of life then, like most of life now, was spent living."[48] Nonetheless, the Resistance Paradigm continues to be a strongly entrenched theme and narrative within slavery studies into the twenty-first century because it has become so enmeshed with many scholars' broader view of slavery.[49] Not unlike the debate regarding the relationship between capitalism and slavery, and the debate concerning econometrics and the utility of quantitative studies in history, the Resistance Paradigm is another historiographical trend that has been much more prominent in the American scholarship as compared to the West Indian scholarship, which has tended to focus more on narratives of anti-imperialism and post-

[48] Sidney Mintz, "Slave Life on Caribbean Sugar Plantations: Some Unanswered Questions," in Stephen Palmie, ed., Slave Cultures and the Cultures of Slavery (Knoxville: University of Tennessee Press, 1995): 13.
[49] For recent examples, see James H. Sweet, *Recreating Africa: Culture, Kinship, and Religion in the African-Portuguese World, 1441–1770* (Chapel Hill: University of North Carolina Press, 2003); Eric Robert Taylor*, If We Must Die: Shipboard Insurrections in the Era of the Atlantic Slave Trade* (New Orleans: Louisiana State University Press, 2006).

colonialism.[50] This rather contrived and artificial divergence of historiographical traditions is something that the methodology of this thesis aims to address.

The fixation with identifying and emphasising slave resistance has also led scholars to exclusively stress the chattel principle and conceptualise slavery as an inherently aberrant and exceptionalist institution rather than as one form of unfree labour that existed at one extreme of the spectrum of violence and coercion in an Atlantic world whose productive labour was largely not "free" by modern standards.[51] As Justin Roberts noted in his work *Slavery and the Enlightenment*, "slavery has been fetishized as a subject."[52] This has the effect of privileging the social and cultural aspects of slavery over its profitable economic and productive labour component, which was in fact the very *raison d'être* of slavery itself. In order to do justice to the unthinkably gruelling work performed by toiling slaves it is critical to also view them as a potent labour force in the context of highly profitable and interconnected Atlantic world business. Rather than focusing unduly upon theoretical questions regarding the relative definitions of slavery and capitalism, upon presenting quantitative and qualitative evidence as inherently conflicting, or upon casting enslaved historical characters as political actors by projecting modern ideological expectations upon them, this study

[50] For examples, see Williams, *Slavery and Capitalism*; Selwyn Carrington, "Economic Determinism vs. Humanitarianism: Examining the Williams Hypothesis in James Millette, ed., *Freedom Road* (Kingston, Jamaica: Arawak Publications, 2007); Selwyn Carrington, "Capitalism & Slavery and Caribbean Historiography: An Evaluation" in *The Journal of African American History* 88.3 (2003): 304-312; see Heather Cateau, "Conservatism and Change: Implementation in the British West Indian Sugar Industry 1750–1810*," Journal of Caribbean History* 29.2 (1995): 1–36.
[51] David Brion Davis, *Inhuman Bondage: The Rise and Fall of Slavery in the New World* (New York: Oxford University Press), 2006, 29-35. Oakes, *Slavery and Freedom*, xiv-xv.
[52] Justin Roberts, *Slavery and the Enlightenment in the British Atlantic World, 1750-1807 (*New York: Cambridge University Press, 2013), 3.

shall strive to examine the plantation complex for exactly what it was in the eighteenth century - a business.

The historiography of Atlantic world business history is diverse and fairly well developed. David Hancock has highlighted the critically determinative role of London merchants in the formation of the British Atlantic in his important monograph *Citizens of the World*.[53] Additionally, recent scholarship by Sherryllynne Haggerty has helped emphasise the history of British Atlantic merchants more broadly, and of those based in Liverpool in particular.[54] A number of other scholars such as Kenneth Morgan, Simon Smith and Cathy Matson have also examined the importance of merchant networks across the British Atlantic and colonial America.[55] Finally, several important studies by the likes of Pierre Jeannin, Wim Klooster, Xabier Lamikiz and others have transcended the British context and examined Atlantic merchants and commercial networks across the French, Dutch and Iberian Atlantics individually, or comparatively, with a

[53] David Hancock, *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735–1785* (Cambridge, UK: Cambridge University Press, 1995). For more of his scholarship about British Atlantic merchants, see David Hancock, "The Triumphs of Mercury: Connection and Control in the Emerging Atlantic Economy," in Bernard Bailyn and Patricia L. Denault, eds., *Soundings in Atlantic History: Latent Structures and Intellectual Currents, 1500-1830* (Cambridge: Harvard University Press, 2009): 112-140; David Hancock, "The Trouble with Networks," *Business History Review,* 79 (2005): 467-491.

[54] Sherryllynne Haggerty, *"Merely for Money?": Business Culture in the British Atlantic, 1750-1815* (Liverpool: University of Liverpool Press, 2012); Sherryllynne Haggerty, *The British-Atlantic Trading Community, 1760-1810: Men, Women, and the Distribution of Goods* (Leiden: Brill, 2006). For Liverpool specifically, see Sherryllynne Haggerty, "Liverpool, the Slave Trade, and the British Atlantic Empire, c. 1750-75," in Sherryllynne Haggerty, Anthony Webster and Nicholas J. White, eds. *The Empire in One City? Liverpool's Inconvenient Imperial Past* (Manchester: Manchester University Press, 2009): 17-34; Sherryllynne Haggerty, "Risk and Risk Management in the Liverpool Slave Trade," *Business History* 51.6 (2010): 817-834.

[55] Kenneth Morgan, "Business Networks in the British Export Trade to North America, 1750–1800," in John J. McCusker and Kenneth Morgan, eds., *The Early Modern Atlantic Economy,* (Cambridge, UK: Cambridge University Press, 2000): 36–62; Simon David Smith, *Slavery, Family and Gentry Capitalism in the British Atlantic: The World of the Lascelles, 1648–1834* (New York: Cambridge University Press, 2006); Cathy Matson, *Merchants and Empire: Trading in Colonial New York* (Baltimore: Johns Hopkins University Press, 1998).

transnational perspective.[56] Some scholars such as Max Edelson and Lorena Walsh have used rigorous quantitative methodology to examine staple crop plantations as business enterprises in the early colonial American regions of South Carolina and the Chesapeake, however this approach has been less frequently applied to the Caribbean sugar plantation complex.[57] By focusing an econometric methodology upon three sugar plantations as early modern Atlantic business ventures in a capitalist framework, and their absentee owners, managers, attorneys, overseers and merchants as rational economic actors, this thesis shall hope to emulate the business history concept in these important works and apply it to the British West Indian sugar plantation.

With three absentee-owned Barbadian sugar plantations, Newton, Seawell and Mount Alleyne, between 1763 and 1815 as a case study, this type of numerically grounded institutional business history shall incorporate quantitative primary evidence in the form of annual account abstracts, qualitative manuscript sources in the forms of

[56] Pierre Jeannin, *Marchands d'Europe: Pratiques et savoirs à l'époque moderne* (Paris: Editions Rue d'Ulm, 2002); David Ormrod, *The Rise of Commercial Empires: England and the Netherlands in the Age of Mercantilism, 1650–1770.* Cambridge Studies in Modern Economic History (New York: Cambridge University Press, 2003); Pieter Emmer, and Femme Gaastra, eds., *The Organization of Interoceanic Trade in European Expansion, 1450–1800* (Aldershot, UK: Variorum, 1996); Wim Klooster, *Illicit Riches: Dutch Trade in the Caribbean, 1648–1795* (Leiden, The Netherlands: KITLV, 1998); Peggy Liss, *Atlantic Empires: The Network of Trade and Revolution, 1713–1826* (Baltimore: Johns Hopkins University Press, 1983); Jonathan Israel, *Dutch Primacy in World Trade, 1585–1740* (New York: Oxford University Press, 1989); Xabier Lamikiz, *Trade and Trust in the Eighteenth-Century Atlantic World: Spanish Merchants and Their Overseas Networks* (Woodbridge, UK: Boydell and Brewer, 2010).

[57] Lorena S. Walsh, *Motives of Honor, Pleasure and Profit: Plantation Management in the Colonial Chesapeake, 1607–1763* (Chapel Hill: University of North Carolina Press, 2010); S Max Edelson, *Plantation Enterprise in Colonial South Carolina* (Cambridge Mass.: Harvard University Press, 2006). For an earlier examination of rice plantations in the Lowcountry, see William Dusinberre, *Them Dark Days: Slavery in the American Rice Swamps* (Athens: The University of Georgia Press, 1996). For an example of such a study of sugar plantation in the West Indies, see B.W. Higman, *Plantation Jamaica, 1750–1850: Capital and Control in a Colonial Economy* (Kingston, Jamaica: University of the West Indies Press, 2005). Such institutional business histories of Barbadian plantations are much less common.

correspondences, primary prescriptive and academic literature and secondary works. By viewing the plantation as a business first and foremost, this thesis shall ask different sets of questions about the nature of the plantation complex within the early modern British Atlantic world, and its relationship with labour, industry, agriculture, technology, capital and coercion. The rigorous application of this empirical business history to plantations and other economic enterprises across the Atlantic world (including the French and Iberian context), without being coloured or politicised by such theoretical constructs as Marxism, capitalism, cliometrics or the Resistance Paradigm, has the potential to bridge the artificial and counter-productive divide between cultural historians and cliometricians and to help reconcile the divergent American and West-Indian nationalist historiographical traditions of plantation slavery.

CHAPTER 3 - "A NOBLE CROP": SUGAR AND RUM PRODUCTION AND PROFITABILITY ON THREE BARBADIAN SUGAR PLANTATIONS

Despite the extravagant lifestyle often enjoyed by the British West Indian planter elite, the complex and technical management of agriculture was neither straightforward nor glamorous. As the plantation owner and manager Patrick Kein eloquently observed in his *Essay upon Pen-Keeping Plantership*, "gaiety would ill become the homely gravity of that hoary-headed venerable matron, agriculture whom I have the honor of introducing."[1] In the face of significant new economic challenges in the late eighteenth century such as rising labour and food costs, falling sugar prices, land and fuel shortage, environmental degradation, the threat of war and slave revolt, hurricanes and foreign competition, some Barbadian planters adopted innovative strategies and mobilised resources in novel and ever-evolving ways. The extent to which sugar planters in Barbados were able to successfully overcome these omnipresent challenges is essentially a subset of the larger historiographical debate surrounding the profitability and long-term economic viability of sugar plantations within the British Caribbean from the mid-eighteenth century until emancipation. An older generation of historians, including Lowell Ragatz and Eric Williams, has argued that from the 1760s onwards, the British West Indian sugar industry went into inexorable decline. They contended that the acquisition of the Ceded Islands of Dominica, St. Vincent and the Grenadines,

[1] Patrick Kein, *An Essay upon Pen-Keeping and Plantership* (Kingston Jamaica: His Majesty's Printing Office, 1796), 9.

Grenada and Tobago in the Treaty of Paris in 1763, the political, commercial and economic disruptions wrought by the American Revolutionary War, decreasing sugar prices due to domestic overproduction and increased competition with sugar planters in Saint-Domingue combined with chronic soil exhaustion, lack of innovation and increasing absentee ownership to cause a precipitous collapse in profitability across the British Caribbean, which was most acutely felt in Barbados.[2] Significantly, Williams further asserted that it was only this decline in profitability of British West Indian plantation sugarcane that made the eventual abolition of the transatlantic slave trade politically feasible, an argument frequently referred to as the "Decline Thesis."[3]

Although these dated works have been repeatedly challenged, the more recent and empirically-based scholarship of Selwyn Carrington, Christer Petley and David Beck Ryden has provided some much-needed quantitative evidence in support of the Decline Thesis.[4] On the other hand, many scholars such as Seymour Drescher, J.R. Ward, John J

---

[2] Lowell J. Ragatz, *The Fall of the Planter Class in the British Caribbean, 1763–1833* (New York: Octagon Books, 1977 [1928]); Eric Williams, *Capitalism & Slavery* (London: A. Deutsch, 1993 [1944]), 108-168.
[3] Williams, *Capitalism & Slavery*, 135-136.
[4] Selwyn Carrington, The *Sugar Industry and the Abolition of the Slave Trade, 1775–1810* (Gainesville: University of Florida Press, 2002); Selwyn Carrington, "The American Revolution and the British West Indies' Economy" in Solow, Barbara L. and Stanley L. Engerman, eds, *British Capitalism and Caribbean Slavery: The Legacy of Eric Williams* (New York: Cambridge University Press, 1987): 135-162; David Beck Ryden, *West Indian Slavery and British Abolition, 1783–1807* (Cambridge: New York University Press, 2009); David Beck Ryden, "Does Decline Make Sense? The West Indian Economy and the Abolition of the British Slave Trade," *Journal of Interdisciplinary History* 31.3 (2001): 347–374; David Beck Ryden, "Planters, Slaves and Decline," in Heather Cateau and S. H. H. Carrington, eds., *Capitalism and Slavery: Fifty Years Later* (New York: Peter Lang Publishing Inc., 2000): 155–170; David Beck Ryden, "Producing a Peculiar Commodity: Jamaican Sugar Production, Slave Life, and Planter Profits on the Eve of Abolition, 1750-1807," *The Journal of Economic History*, 61.2 (2001): 504-507; Selwyn Carrington, "Economic Determinism vs. Humanitarianism: Examining the Williams Hypothesis in James Millette, ed., *Freedom Road* (Kingston, Jamaica: Arawak Publications, 2007); Selwyn Carrington, "Capitalism & Slavery and Caribbean Historiography: An Evaluation" in *The Journal of African American History* 88.3 (2003): 304-312; David Beck Ryden, "Sugar, spirits, and fodder: The London West India Interest and the Glut of 1807–15" *Atlantic Studies* 9.1 (2012): 41-64; Christer Petley, "Gluttony, Excess and the Fall of the Planter Class in

McCusker, David Eltis, B.W. Higman and Justin Roberts have rejected the Decline Thesis and the notion of a collapsing British West Indian plantation sugar economy, instead contending that many sugar planters were able to effectively adapt to changing economic and geopolitical circumstances with an increased focus upon domestic and regional self-sufficiency of food supply, more intensive and efficient labour, capital, equipment and land usage, greater economic diversification of crops, novel management, discipline and labour practices and technological innovation. Furthermore, they assert that absentee ownership and the attorney system which typified much of the British Caribbean sugar economy was not nearly as ineffectual and harmful as some historians, such as Ragatz and Williams, have suggested.[5] This thesis shall join this second group of historians in refuting the assertions of the Decline Thesis, at least as it relates to the profitability of absentee Barbadian sugar plantations.

Some of the current historical scholarship presents a British Atlantic sugar industry that was able to effectively recover from the challenges posed by the American Revolutionary War, the Great Hurricane of 1780 and the competition with Saint-

---

the British Caribbean" *Atlantic Studies* 9.1 (2012): 85-106; Christer Petley, "Rethinking the Fall of the Planter Class, *Atlantic Studies* 9.1 (2012): 1-17.

[5] J. R. Ward, *British West Indian Slavery, 1750–1834: The Process of Amelioration* (New York: Oxford University Press, 1988), 38-232; J. R. Ward, "The Profitability of Sugar Planting in the British West Indies, 1650–1834," *Economic History Review* 31.2 (1978): 197–213; Roberts, *Slavery and the Enlightenment in the British Atlantic World, 1750-1807 (*New York: Cambridge University Press, 2013), 26-160; Justin Roberts, "Uncertain Business: A Case Study of Barbadian Plantation Management, 1770-1793," *Slavery & Abolition* 32.2 (2011): 247-268; David Eltis, *The Rise of African Slavery in the Americas* (Cambridge, UK: Cambridge University Press, 2000), 193-223; Seymour Drescher, *Econocide: British Slavery in the Era of Abolition* (Pittsburgh, PA: University of Pittsburgh Press, 1977); J. R. Ward, "The Amelioration of British West Indian Slavery, 1750–1834: Technical Change and the Plow," *New West-Indian Guide* 63.1–2 (1989): 45; John J. McCusker, "The Economy of the British West Indies, 1763–1790: Growth, Stagnation or Decline," in John J. McCusker, ed., *Essays in the Economic History of the Atlantic World* (London: Routledge, 1997: 310–330); B.W. Higman, *Plantation Jamaica, 1750–1850: Capital and Control in a Colonial Economy* (Kingston, Jamaica: University of the West Indies Press, 2005), 137-278; Lowell J. Ragatz, *The Fall of the Planter Class*; Williams, *Capitalism & Slavery*.

Domingue and Cuba to regain ascendancy, particularly after the Haitian Revolution, which would have been able to continue to operate profitably and coherently had it not been for the abolition of the transatlantic slave trade. However, Ryden's most recent work, *West Indian Slavery and British Abolition, 1783-1807* (2009), in particular, with its rigorous quantitative analysis and wealth of archival research, has significantly resurrected some of the tenets of the Decline Thesis. In it, Ryden does consciously recognise the innovative potential and flexibility of sugar planters and of the plantation complex more broadly, and breaks with Williams by suggesting that there was nothing inherently moribund and unsustainable about plantation slavery or inevitable about sugar's decline, but he asserts that a precipitous collapse in sugar prices, brought about by overzealous speculation, rampant overproduction and foreign competition, was ultimately responsible for declining profitability and thus, by extension, abolition.[6] Although Ryden's sterling econometric credentials and plentiful evidence are impressive, he concentrates almost exclusively upon Jamaica at the expense of other sugar colonies, and ignores Barbados almost entirely, thus not considering the possibility of alternative models of sugar production beyond the Jamaican context.[7] In particular, although the smaller and older Barbadian plantations typically had smaller crops than their larger, newer Jamaican counterparts, they were often able to consistently produce sugar at a lower operating cost, which could have proved

[6] Ryden, *West Indian Slavery and British Abolition*, 216-270.
[7] *Ibid.*, 40-156.

financially decisive in a period of prolonged low sugar prices.[8] Additionally, some of the prescriptive literature stressed that while Barbadian planters may not have always enjoyed the highest profits, they made great efforts to have the most consistent and steady profits, with one contemporary planter, Edwin Lascelles, declaring that "a right system of management, I think, would in a great measure prevent that variation in the nett produce so justly objected to in Barbados estates."[9] Some of these discrepancies could be attributed to the success of the Amelioration movement in Barbados which had caused a natural increase in slave population in Barbados by the late eighteenth century not seen on other British West Indian sugar islands such as Jamaica.[10]

This chapter challenges the applicability of the newly reinvigorated Decline Thesis to Barbados and Ryden's most recent work in particular, asserting that all three of these plantations maintained profits. While sugar sale prices temporarily decreased, they quickly recovered and the estates did not experience a significant decline in revenue. Secondly, it examines the microeconomics of Newton, Seawell and Mount Alleyne in much greater detail than in Ward's extremely influential article and revises his conclusions pertaining to their profits and rates of return. Thirdly, it expresses and quantifies a strongly positive correlation between the plantations' rum prices and wartime. Fourthly, it asserts that, in contrast to the narrative presented in much of the secondary literature, rum production decreased steadily on all three plantations. This

[8] Ward, "The Profitability of Sugar Planting, in the British West Indies, 1650–1834," 190-232; Roberts, "Uncertain Business," 254; Ryden, *West Indian Slavery and British Abolition*, 254-270.
[9] Edwin Lascelles, et al. *Instructions for the Management of a Plantation in Barbadoes. And for the Treatment of Negroes* (London: [s.n.], 1786), 1.
[10] For more on the Amelioration movement, see Ward, *British West Indian Slavery, 1750–1834*, 190-232.

shows that given the circumstances, there were various options available to sugar plantation managers at this time and that the continued prosperity of Newton and Seawell in particular eschews any notion of a one-size fits-all strategy for British West Indian sugar plantations. Finally, it asserts a common theme running through all five of these points: that far from being rigid, conservative and hidebound as some have suggested, Barbadian planters were dynamic and innovative, and adapted to the challenges that they faced in creative and evolving ways.[11]

Sources of Plantation Revenue

The Newton Family Papers contain a set of annual financial ledgers, journals and abstracts for Newton, Seawell and Mount Alleyne plantations that record (albeit in a somewhat erratic and inconsistent manner) the annual revenues and debits by quantity and source (see Figure 3).[12] The revenue side of the accounts, typically appears at the end of the abstract and is usually referred to under the heading "Contra." For some years, the revenues are rather neatly subdivided into the headings "Sugar," "Rum," and "Sundrys" however in other cases these distinctions are not so immediately apparent.[13] While the accounts are not extremely consistent in their format by modern accounting standards, Antiguan planter Samuel Martin stressed the skill of both Barbadian planting

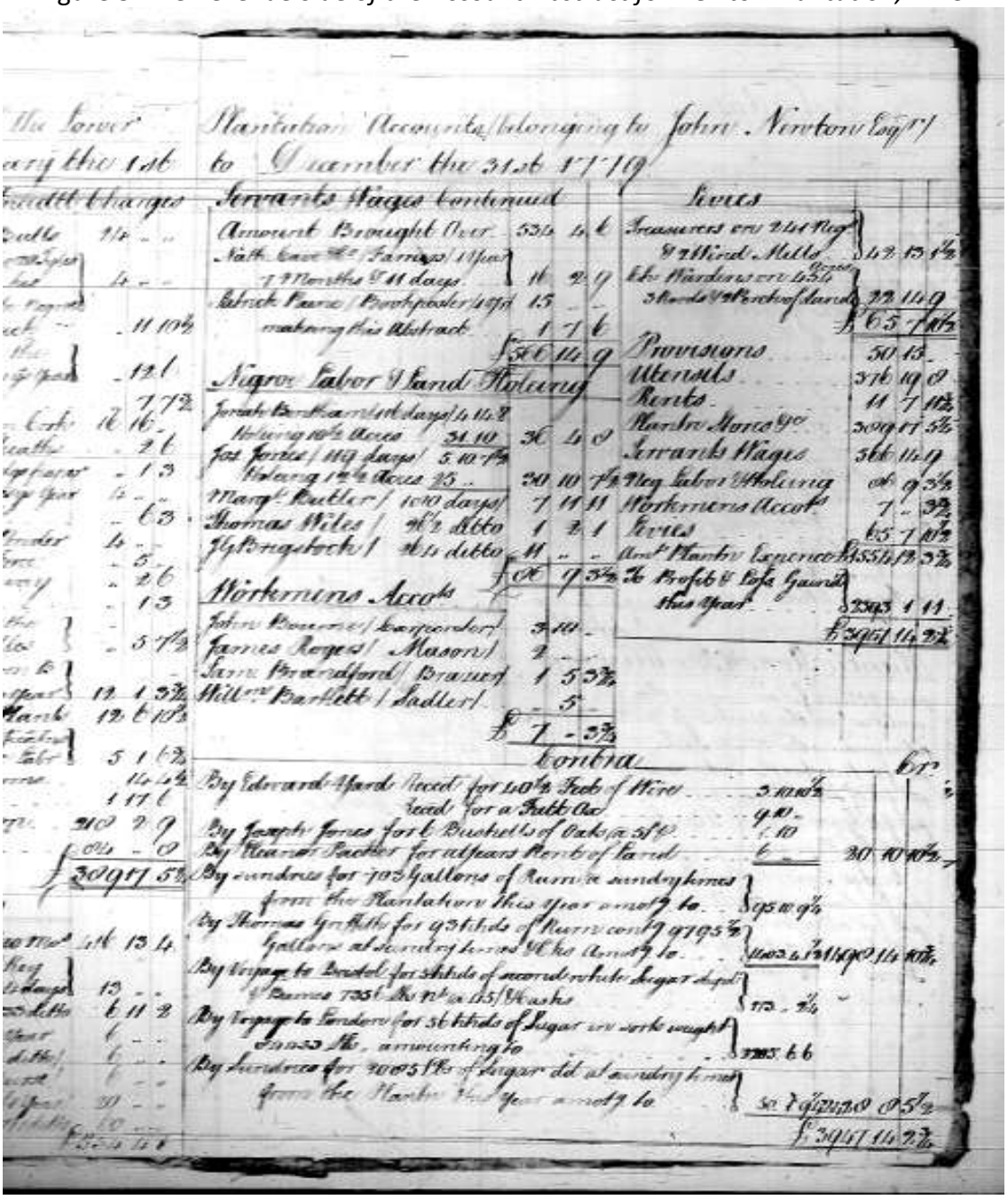
[11] For a presentation of planters as inherently conservative and rigid, see Heather Cateau, "Conservatism and Change: Implementation in the British West Indian Sugar Industry 1750–1810*," Journal of Caribbean History* 29.2 (1995): 1–36; Heather Cateau, "'A Question of Labor': British West Indian Plantations, 1750–1810," *Plantation Society in the Americas* 6.1 (1999): 65–94.

[12] Newton Papers, MS 523/6-166. The span of these documents is 1756-1815 for Newton, 1756-1804 for Seawell and 1756-1783 for Mount Alleyne. Prior to 1771, there are no annual abstracts, although they can be somewhat reconstituted from the ledgers as far back as 1763, though not earlier. There are also no accounts whatsoever for the years 1772 and 1780-1781. Furthermore, in the cases of Newton and Seawell, 1787 has no annual abstract nor do 1802-1804.

[13] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

and bookkeeping, claiming that "the planters of Barbadoes... are perhaps the most skillful of all others, and exact to a nicety in calculation of profit and loss."[14]

Figure 3. *The Revenue Side of the Account Abstract for Newton Plantation, 1779*



Source: Abstract of Accounts, 1779, MS 523/34-48, Newton Family Papers.

[14] Samuel Martin, *An Essay Upon Plantership*, 4th edn. (London: T. Smith, 1765), 14.

The British Empire used a non-decimalised monetary system throughout the eighteenth and nineteenth centuries known as the £sd (or pounds-shillings-pence) system.[15] In addition to the sterling system, there were also separate exchange rates for the local currencies of various British colonies such as Barbados and Jamaica, however these account abstracts used exclusively pound sterling as opposed to Barbadian pounds.[16] British financial accounts at this time typically had three vertical columns running along the right side of the page corresponding to pounds, shilling and pence (see Figure 3).[17] When multiple monetary values were added together, the numbers of shillings and pence were typically reduced to their lowest possible number, but not always. The numerical data points from these abstracts can thus be decimalised where necessary and tabulated for all of the years available on each individual plantation with totals and averages calculated (See Tables 2, 3 and 4).

[15] C.H.V. Sutherland, *English Coinage, 600-1900* (London: B.T. Batsford, 1973), 10. The symbols for these three monetary units were derived from the Latin currency denominations *librae*, *solidi*, and *denarii*. Under this regime, a pound was worth 20 shillings which was in turn worth 12 pence, thus making a pound equal to 240 pence. Other monetary terms such as a Guinea (equal to a pound and a shilling), or a crown (equal to 5 shillings) were often colloquially used, however generally not in accounting. This monetary system continue until February 15, 1971.

[16] For more on Barbadian pounds and the fluctuation of its associated exchange rate, see John J. McCusker, *Money and Exchange in Europe and America, 1600-1775* (Chapel Hill: University of North Carolina Press, 1978).

[17] For more on British accounting practices at this time, see Caitlin C. Rosenthal, "From Memory to Mastery: Accounting for Control in America, 1750-1880," *Enterprise & Society* 14.4 (2013): 732-748. For a broader study of scientific bookkeeping and its relationship to capitalism, see B. S. Yamey, "Scientific Bookkeeping and the Rise of Capitalism," *Economic History Review* 1.2–3 (1949): 99–113. For a contemporary account of bookkeeping practices, see John Mair, *Book-Keeping Methodiz'd or a Methodical Treatise of Merchant-Acompts, according to the Italian form*, 7th ed (Edinburgh: Sands, Donaldson, Murray, and Cochran, 1763).

Table 2. *Revenue by Source on Newton Plantation (1771-1815)*
(£ sterling)

Year	Sugar	Rum	Other	Total	%Sugar	%Rum	%Other
1771	672	411	69	1153	58	36	6
1773	1188	765	10	1964	61	39	1
1774	1058	551	121	1729	61	32	7
1775	530	263	49	842	63	31	6
1776	493	202	82	777	63	26	11
1777	2132	1100	64	3296	65	33	2
1778	1033	422	75	1530	68	28	5
1779	2255	1499	194	3948	57	38	5
1782	621	174	118	912	68	19	13
1783	162	98	43	303	53	32	14
1784	477	111	182	770	62	14	24
1785	2732	845	306	3883	70	22	8
1786	2155	962	233	3351	64	29	7
1787	2190	741	272	3203	68	23	8
1788	2333	936	362	3632	64	26	10
1789	1759	701	242	2702	65	26	9
1790	1862	984	302	3147	59	31	10
1791	2625	660	300	3586	73	18	8
1792	3411	822	308	4540	75	18	7
1793	1938	709	232	2879	67	25	8
1794	1244	285	200	1729	72	16	12
1795	1213	432	217	1862	65	23	12
1796	2551	1148	290	3990	64	29	7
1797	1078	419	175	1673	64	25	10
1798	5744	1844	903	8491	68	22	11
1799	8396	2021	588	11005	76	18	5
1800	1780	877	471	3128	57	28	15
1801	735	402	117	1254	59	32	9
1802	6196	2016	1091	9304	67	22	12
1803	3405	1719	818	5942	57	29	14
1804	1520	487	98	2105	72	23	5
1805	4801	1191	1220	7212	67	17	17
1806	3115	658	678	4452	70	15	15
1807	2855	715	564	4135	69	17	14
1808	3010	896	931	4837	62	19	19
1809	4130	1348	860	6338	65	21	14
1810	3016	599	613	4228	71	14	14
1811	3437	818	652	4907	70	17	13
1812	3452	1096	459	5007	69	22	9
1813	2606	715	617	3939	66	18	16
1814	6120	1214	789	8122	75	15	10
1815	4690	971	1377	7039	67	14	20
Total	106722	34829	17289	158840			
Average	2541	829	412	3782	67	22	11

Note: The values of sugar and rum include only the values of the product, not of the casks in which they were sold, which had to be extrapolated from the abstracts. Values from 1787 and 1802-1804 contain estimates due to no annual abstract.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

Table 3. *Revenue by Source on Seawell Plantation (1771-1804)*
(£ sterling)

Year	Sugar	Rum	Other	Total	%Sugar	%Rum	%Other
1771	629	474	0	1103	57	43	0
1773	1306	847	52	2205	59	38	2
1774	1441	1021	37	2498	58	41	1
1775	223	134	19	376	59	36	5
1776	1870	1086	23	2980	63	36	1
1777	1183	712	19	1913	62	37	1
1778	668	341	51	1060	63	32	5
1779	1515	955	32	2502	61	38	1
1782	1322	281	166	1768	75	16	9
1783	53	16	11	79	66	20	14
1784	142	88	99	329	43	27	30
1785	1119	863	115	2097	53	41	5
1786	871	566	229	1667	52	34	14
1787	1909	699	465	3074	62	23	15
1788	2327	806	850	3984	58	20	21
1789	830	336	673	1839	45	18	37
1790	871	387	761	2019	43	19	38
1791	2061	526	203	2790	74	19	7
1792	3925	1467	432	5824	67	25	7
1793	2121	717	387	3224	66	22	12
1794	1463	336	212	2011	73	17	11
1795	308	96	40	444	69	22	9
1796	2090	750	500	3341	63	22	15
1797	1028	318	1335	2681	38	12	50
1798	2978	613	1088	4680	64	13	23
1799	4110	605	316	5030	82	12	6
1800	339	141	567	1047	32	13	54
1801	111	31	1316	1458	8	2	90
1802	2300	802	438	3540	65	23	12
1803	1868	679	124	2671	70	25	5
1804	186	172	1451	1809	10	10	80
Total	43167	16865	12009	72041			
Average	1392	544	387	2324	60	23	17

Note: The values of sugar and rum include only the values of the product, not of the casks in which they were sold, which had to be extrapolated from the abstracts. Values from 1787 and 1802-1804 contain estimates due to no annual abstract.

Sources: Abstract of Accounts, 1771-1804, MS 523/34-155, Newton Family Papers.

Table 4. *Revenue by Source on Mount Alleyne Plantation (1771-1783)*
(£ sterling)

Year	Sugar	Rum	Other	Total	%Sugar	%Rum	%Other
1771	1585	923	64	2571	62	36	2
1773	797	605	68	1471	54	41	5
1774	1350	909	0	2259	60	40	0
1775	933	601	44	1578	59	38	3
1776	1267	491	16	1774	71	28	1
1777	1196	737	19	1952	61	38	1
1778	792	442	37	1271	62	35	3
1779	811	414	31	1256	65	33	2
1782	1869	672	273	2814	66	24	10
1783	537	237	83	857	63	28	10
Total	81457	31079	22200	134737			
Average	3017	1151	822	4990	63	34	4

Note: The values of sugar and rum include only the values of the product, not of the casks in which they were sold, which had to be extrapolated from the abstracts.

Sources: Abstract of Accounts, 1771-1783, MS 523/34-54, Newton Family Papers.

As can be clearly seen in Tables, 2, 3 and 4, sugar consistently accounted for the majority of the revenue on all three plantations, as was to be expected from a British West Indian sugar plantation, averaging over 60% of the total revenue in each case. A gradual rise in the percentage of revenue derived from sugar over time is visible, which helps explain why Newton averaged the highest overall proportion of revenue derived from sugar, because its accounts extend the furthest in time.[18] Sugar's percentage value fluctuated the least among the three columns and it tended to be highest in years of higher revenue such as the year 1799. In this year, both Newton and Seawell plantations both grew a very sizeable sugar crop, the like of which according to their joint plantation manager Sampson Wood, "has not been seen in many years."[19] The sizeable crops in 1798 and 1799 can be attributed in part to the introduction of a new kind of sugarcane,

[18] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[19] "Sam Wood to Thomas Lane," 24 April, 1798 MS 523/335/1, Newton Family Papers.

known as "Bourbon cane" (or alternatively, Otaheite cane) for the first time in 1796.[20] At the suggestion of the Wood, Newton and Seawell made an experimental trial run with a small amount of Bourbon cane, whose cuttings they obtained from the neighbouring sugar estate of a friend of John and Thomas Lane, Sir Francis Ford.[21] Wood suggested that although some Barbadian planters claim that Bourbon cane "makes a weak and bad Sugar," this was merely because it was being cut too early.[22] Wood further elaborated that "Sir John Laterey & the original Speculators in them, published that these canes came to mature in nine or ten months- but the fact is no so- at least in the soil of this Island it is not so. Here by experience we prove that they take as much time, as our own cane, to ripen- young they made bad Sugar of a sufficient Age that is from twelve to fifteen months, they positively make very good."[23]

According to Wood, the Bourbon cane on Ford's estate "yielded double the produce," declaring "I never saw a stronger or a fairer Sugar."[24] Additionally, he claimed that "Those who adventured on the Bourbon, as our Neighbour St. Francis Ford, & one or two others have saved themselves. Had I been here a twelve month before for two or

[20] "Report on the [Newton] Lands," MS 523/289, Newton Family Papers; "Report on the Lands of Seawell Plantation," MS 523/291, Newton Family Papers; "Thomas Lane to Wood," May 3, 1796 MS 523/967, Newton Family Papers. For contemporary prescriptive literature on the particulars and cultivation of Bourbon Cane, see Benjamin Moseley, *A Treatise on Sugar* (London: G. G. & J. Robinson, 1799), 23-25. For a modern description of Bourbon cane, see J.H. Galloway, *The Sugar Cane Industry: An Historical Geography from its Origins to 1914* (New York: Cambridge University Press, 1989), 96; Henk Bakker, *Sugar Cane Cultivation and Management* (New York: Springer, 1999); Starkey, *The Economic Geography of Barbados*, 108-109. The conventional opinion is that Bourbon and Otaheite cane were identical, however Starkey suggests that they were in fact two different kinds of cane.

[21] "Thomas Lane to Wood," May 3, 1796 MS 523/967, Newton Family Papers; "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers.

[22] "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers.

[23] *Ibid*.

[24] "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers; "Sam Wood to Thomas Lane," May 3, 1797 MS 523/303, Newton Family Papers.

three hundred pounds laid out in them I should probably have cleared you as many thousand. However I trust next year under the blessing of God, to be amply repaid for it."[25] In a rare example of a surviving letter from an absentee planter to a plantation manager, Thomas Lane thanked Wood for his suggestion. Lane stated enthusiastically on behalf of both himself and his brother that "We are also indebted to you much for your kind attention to us in the article of the Bourbon Cane, which are all of us have an Interest in wishing success to- I had heard of this Cane before your letter ment'd. it; and shall be very glad if on trial it is found to answer ye expectations that are formed of it."[26] Despite Wood's enthusiasm and Lane's acquiescence however, in 1796, less than 10% of the cane lands on both plantations were cultivated with Bourbon cane.[27]

The positive ramifications of this transition were not immediately evident however, as the modest revenues in 1797 show. Wood explained this to Thomas Lane stating, “These forty hogsheads, I am sorry to say, will be most of our sugar crop. I have already given you frequent intimation how short it would be.”[28] In typical fashion, he emphasised that the fault did not lie with him, declaring “I had nothing to do with the planting of the crop” and insisting that if he had been present when this crop was planted, he would have surely have "adventured more largely on the Bourbon cane.”[29] Finally, he also blamed the dry weather that year, stating that “neither Bourbon Cane,

[25] "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers.
[26] "Thomas Lane to Wood," May 3, 1796 MS 523/967, Newton Family Papers.
[27] "Report on the [Newton] Lands," MS 523/289, Newton Family Papers; "Report on the Lands of Seawell Plantation," MS 523/291; "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers; Justin Roberts, “Working between the Lines: Labor and Agriculture on Two Barbadian Sugar Plantations, 796–1797,” *William and Mary Quarterly* 63.3 (2006): 558.
[28] "Sam Wood to Thomas Lane," May 3, 1797 MS 523/303, Newton Family Papers.
[29] "Sam Wood to Thomas Lane," May 3, 1797 MS 523/303, Newton Family Papers.

nor any thing else can withstand the very severe dry weather we have not a rain even yet…no moisture for six months…what plant can thrive or even live."[30] 1797 was in fact a significant drought year across the island and in Christ Church parish in particular, and the attorney at the nearby Codrington plantation made comments quite similar to Wood.[31] This sentiment regarding the uncertainty and seasonality of sugarcane cultivation was previously articulated in prescriptive literature by Williams Belgrove, who stated "as it is acknowledged by all that a Plantation, seasonably cultivated in this Island, will yield great Profits, if judiciously managed; which, if not strictly attended to, will, on Account of the Variety of accidents to which it is by Nature subject, soon become a Charge and Debtor to the Owner; it would be superfluous and unnecessary to urge the Necessity, or enumerate the Advantages, of a constant Attention to the Management of a Plantation."[32] Later in the year, however, Wood was more optimistic about the prospects of the Bourbon cane withstanding the drought, saying "I am sure the cultivation & preparation is very fine which makes the cane withstand the dry weather & even grow."[33] So confident was he in the Bourbon cane that he wrote that "I have extirpated the whole of the old Species of Cane. I have nothing now but Bourbon," marking a seemingly complete transition to Bourbon Cane. [34]

As the cultivation of Bourbon cane progressed, Wood became more and more optimistic declaring at the end of 1797 that they shall make "a noble crop" and that

[30] *Ibid*.
[31] Roberts, *Slavery and the Enlightenment*, 94-95.
[32] William Belgrove, *A Treatise Upon Husbandry or Planting* (Boston: D. Fowle, 1755), 1.
[33] "Sam Wood to Thomas Lane," September 8, 1797 MS 523/321, Newton Family Papers.
[34] *Ibid*.

"only the Borers [a sugar pest] can stop us now!"[35] In characteristic fashion, he was certain to temper expectations, but his mercurial disposition towards the outlook of the sugar crop and veritable obsession with the vermin that threaten it hint at a certain sense of emotional instability on his part that is a recurrent theme throughout his letters.[36] On March 31, 1798, Wood bemoaned that "the last & most dangerous enemy, indeed the only one we had to fear, Borer & Grub- have nearly ruined us," however given the crop that ultimate resulted that year, these fears prove to be mostly unfounded.[37] By April 24, however, he wrote that "I believe, I shall fulfill my words 'that Newton has not seen such a crop for many years.'"[38] Looking forward to the following year, Wood declared that "our young crop, & ratoons for the ensuing Season look charmingly, very different from this time last year, & yet we make a good crop [,] Seawell likewise" and that despite the excellent crop of the current year, "it is much inferior to what I look for next year."[39] The exceptional revenues on both Newton and

[35] "Sam Wood to Thomas Lane," October 15, 1797 MS 523/322, Newton Family Papers; "Sam Wood to Thomas Lane," November 23, 1797 MS 523/324, Newton Family Papers; FA Hoyos, *Barbados: A History from the Amerindians to Independence* (London: Macmillan Education Limited, 1978), 62-63, 89; "Sam Wood to Thomas Lane," March 31, 1798, MS 523/334, Newton Family Papers; Robert H. Schomburgk, *The History of Barbados Comprising a Geographical and Statistical Description of the Island; a Sketch of the Historical Events and Settlements; and an Account of the Geology and Natural Productions* (London: Longman, 1848), 645-646. The "Yellow Blast" or "Borer" as it was known at this time, was the larval state of the common moth species *Diatraea Saccharalis*. If left unchecked they could quickly devour entire cane fields. A contemporary historian referred to these as "tribes of vermin more destructive than the locusts and the caterpillars of old." For vermin and pests, see Schomburgk, *The History of Barbados*, 640-653. For ecological considerations see Otis P. Starkey, *The Economic Geography of Barbados: A Study of the Relationships between Environmental Variations and Economic Development* (New York: Columbia University Press, 1939), 13-50; David Watts, *Mans Influence on the Vegetation of Barbados* 1627-1800, (Hull: University of Hull Publications, 1966).

[36] Wood seems to repeatedly contradict himself between letters regarding the quality and quantity of sugar that shall be produced.

[37] "Sam Wood to Thomas Lane," March 31, 1798, MS 523/334, Newton Family Papers; Abstract of Accounts, 1799, MS 523/134-137, Newton Family Papers.

[38] "Sam Wood to Thomas Lane," April 24, 1798 MS 523/335/1, Newton Family Papers.

[39] *Ibid*.

Seawell in 1798 and 1799, particularly the whopping £11 000 earned on Newton in the latter year, would seem to vindicate Wood's words and decisions as well as the transition to Bourbon Cane more broadly.

Newton, Seawell and Mount Alleyne, while primarily sugar plantations, obtained revenue from many other sources as well. The columns entitled "Other" in the tables above represent all sources of revenue that are not sugar and rum. These include the casks in which sugar and rum are sold, excess provisions such as Indian corn, Guinea corn and yams, livestock such as cattle and horses, and the hiring out of slaves' and servants' labour.[40] The sale of provisions shows a marked increase on Newton in particularly, especially in the later years as shall be examined more thoroughly in the next chapter.[41] The percentage value derived from these sources tended to be higher in years of low revenue, when the value of provisions, livestock and equipment represented a comparatively high proportion of the total, due to significantly less sugar and rum being sold. Additionally, Seawell, whose rockier, coastal soil was better suited than the other estates to the production of long-staple cotton, repeatedly experimented

---

[40] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers. Philip D. Morgan, "Task and Gang Systems: The Organization of Labor on New World Plantations," in Stephen Innes, ed., *Work and Labor in Early America* (Chapel Hill: University of North Carolina Press, 1988): 189–220.
The hiring out of slave labour to other plantations in particular, either in the form of individual skilled slaves to other plantations for specific tasks or large numbers of field slaves known as "jobbing gangs" showed the transient nature of plantation slave labour in Barbados and represented an important component in the domestic Barbadian economy at this time. The role of slave hiring shall be examined more thoroughly in the following chapter. For more on livestock, see Verene A. Shepherd, *Livestock, Sugar and Slavery: Contested Terrain in Colonial Jamaica* (Kingston, Jamaica: Ian Randle Publishers, 2009); Verene A. Shepherd, "Livestock and Sugar: Aspects of Jamaica's Agricultural Development from the Late Seventeenth to the Early Nineteenth Century," The Historical Journal 34.3 (September 1991): 627–643; Philip D. Morgan," Slaves and Livestock in Eighteenth- Century Jamaica: Vineyard Pen, 1750-1751," *William and Mary Quarterly* 3.52 (1995): 47-76. For a contemporary account of the role of livestock in the operation of a sugar plantation, see Kein, *An Essay upon Pen-Keeping and Plantership*, 25-33.
[41] Abstract of Accounts, 1805-1815, MS 523/156-166, Newton Family Papers.

with the cultivation of this staple crop alongside, or in some cases instead of, sugar.[42] This mirrored a larger ongoing trend on the island of Barbados of returning to cotton cultivation, particularly after 1775, due to the effects of the American Revolutionary War.[43] Cotton, which was first grown on Seawell plantation, was sold from 1788-1790, and again in 1793.[44] In 1796, cotton was once again cultivated at the suggestion of the Chief Overseer, Richard Nurse, made the previous year.[45] In May of that year, Lane wrote to Nurse inquiring, "Are there any lands which are not eligible for planting canes that are or can be turned to advantage any other way- you mention your Intention to try Cotton on some part of them; to which we cheerfully accede, more particularly seeing the very kind manner in which you are pleased to address such intention."[46] The next year, Lane also wrote to Wood, “In respect to Seawell’s plantation," of "Mr Nurse’s proposition of planting a good many acres of Cotton for ye present year’s crops-," that "we shall therefore sir make trial of his Scheme; and can continue it or not as Seems most advisable after a fair time has been given for ye experiment."[47]

---

[42] Roberts, "Working Between the Lines," 556; Roberts, *Slavery and the Enlightenment*, 95; Jerome S. Handler and Frederick W. Lange, with Robert V. Riordan, *Plantation Slavery in Barbados: An Historical and Archaeological Investigation* (Cambridge: Harvard University Press, 1978), 304; Jonathan D. Sauer, Historical *Geography of Crop Plants: A Select Roster* (Boca Raton: CRC Press, 1994). Long-staple cotton or *Gossypium Barbadense*, is one of several commercial varieties of cotton. It was first cultivated on a large scale in Barbados in the 1650s and in fact derives its Linnaean taxonomy from the island.

[43] Starkey, *The Economic Geography of Barbados*, 106-107. For the economic and political effects of the American Revolutionary War upon the British Caribbean, see Andrew Jackson O’Shaughnessy, *An Empire Divided: The American Revolution and the British Caribbean*, (Philadelphia: University of Pennsylvania Press, 2000).

[44] Abstract of Accounts, 1771-1804, MS 523/34-155, Newton Family Papers.

[45] "Thomas Lane to Richard Nurse," September 12, 1795 MS 523/967, Newton Family Papers.

[46] *Ibid*.

[47] "Thomas Lane to Wood," May 3, 1796 MS 523/967, Newton Family Papers.

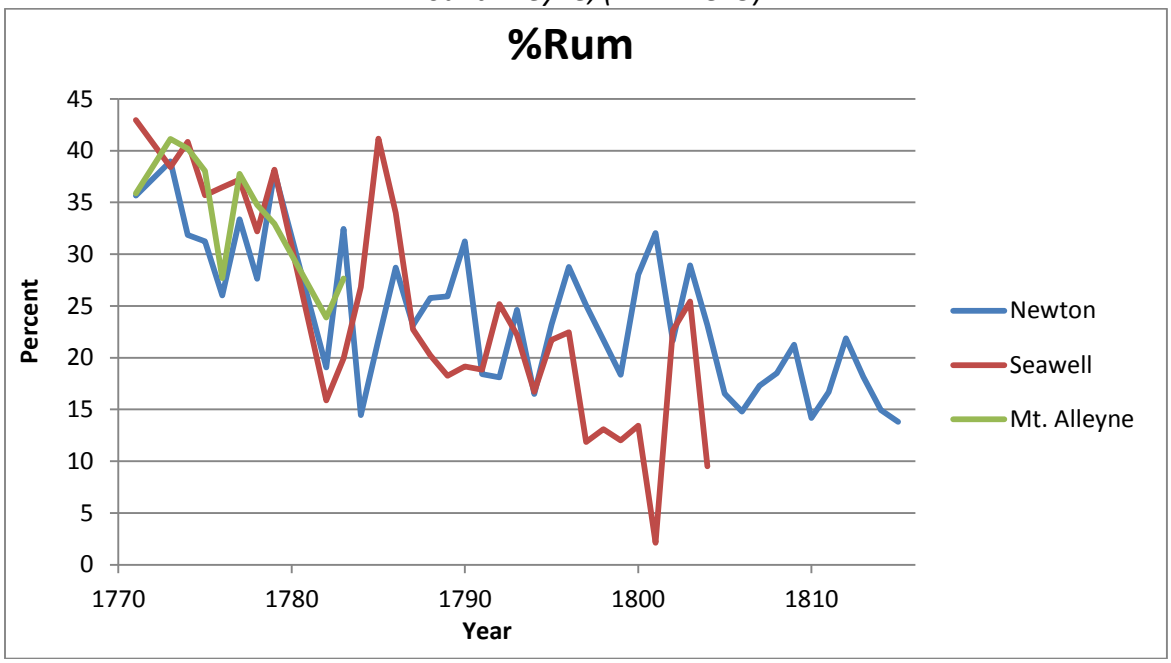
Wood was nonetheless cognisant of the potential limitations and challenges of devoting a single plantation to multiple crops however, remarking that “the worst of planting the two articles Sugar & Cotton on the same Estates is that the one interferes so much with the other. You cannot employ yourself in both, & each requires attention at the same period."[48] Wood further stated that "We have however erected our Cotton Machines & shall be at constant work on them now.”[49] In fact, that same year, Wood even remarked that Seawell might do simply better "as a cotton plantation rather than a Sugar one."[50] Wood also repeatedly suggested trying to find a local customer for the cotton rather than shipping it to England stating, “I had some thought of selling the cotton here & could have got a good price...but it is not at present in demand.”[51] This reliance upon cotton cultivation accounts for the spikes in the revenue from other sources in the years 1787-1790, 1793, 1796-1798, 1800-1801 and 1804 on Seawell.[52] The revenues derived from cotton were significant but also curiously intermittent.

Rum, an important by-product of sugar boiling, was distilled from leftover molasses.[53] The percentage of revenue derived from rum exhibits a marked decline on

[48] "Sam Wood to Thomas Lane," May 3, 1797 MS 523/303, Newton Family Papers.
[49] *Ibid*.
[50] "Report on the Lands of Seawell Plantation," MS 523/291, Newton Family Papers.
[51] "Sam Wood to Thomas Lane, May 3," 1797 MS 523/302, Newton Family Papers; "Sam Wood to Thomas Lane," March 26, 1797 MS 523/295, Newton Family Papers.
[52] Abstract of Accounts Newton Papers MS 523/ 70-155, Newton Family Papers.
[53] For a definitive history of rum in the Caribbean, see John J. McCusker, *Rum and the American Revolution: The Rum Trade and the Balance of Payments of the Thirteen Continental Colonies* Volume 1 (New York: Garland, 1989, Ph.D. dissertation, University of Pittsburgh, 1970), 128-228; Frederick H. Smith, *Caribbean Rum: A Social and Economic History* (Gainesville: University Press of Florida, 2005). For a contemporary account of the production of rum on a British West-Indian sugar plantation, see Caines, *Letters on the Cultivation of Otaheite Cane*. For a French account, see Jacques-François Dutrône de La Couture, *Précis sur la canne: et sur les moyens d'en extraire le sel essentiel, suivi de plusieurs mémoires sur*

all three plantations over the years in question. In fact, the proportion of revenue from rum decreases during this period at a rate of nearly 5% per decade. Put another way, in the 1770s, the average ratio between sugar and rum revenues was consistently less than 2:1, and by the 1790s, it had grown to more than 3:1 (See Figure 4).[54]

Figure 4. *Percentage of revenue derived from rum on Newton, Seawell and Mount Alleyne, (1771-1815)*



Note: Data is unavailable for 1772, 1780-1781. The values of sugar and rum include only the values of the product, not of the casks in which they were sold, which had to be extrapolated from the abstracts. Values from 1787 contain estimates due to no annual abstract.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

This decline in rum production runs rather contrary to an existing historiography that states that during and after the American Revolution, planters increasingly sought to produce as much rum as possible to reduce shipping costs and maximise profits.[55] In

---

le sucre, sur le vin de canne, sur l'indigo, sur les habitations & sur l'état actuel de Saint-Domingue : ouvrage dédié à cette cololonie, & imprimé à ses frais / par Jes-F. Dutrône (Paris: Chez Debure, 1791).

[54] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

[55] Smith, *Caribbean Rum: A Social and Economic History*, 55; McCusker and Menard, *The Economy of British America 1607-1789*, 165; Roberts, "Uncertain Business," 259; Starkey, *The Economic Geography of*

fact, Newton, the most profitable of the three plantations, produced the least rum in relation to sugar. During the years that were examined, Newton produced 368 litres of rum for every ton of sugar, Seawell produced 522, and Mount Alleyne 764.[56] This can be compared to an average of 589 across Barbados and 315 throughout the rest of the British West Indies as a whole.[57] It should always be remembered, however, that Newton, Seawell and Mount Alleyne plantations are not necessarily in all things representative of sugar plantations in Barbados. One possible explanation for the decrease in rum production could be that the distilling house was apparently in a perpetual state of disrepair. In late 1797, Sampson Wood remarked that "One of the Stills gave out last year in the midst of our crop…entirely worn out & by no means to be mended," wondering "How could anyone let things run to ruin in such a manner?"[58] Additionally, earlier the same year, Wood commented on changes in the sugar boiling process and the ramifications that it had on sugar production, stating that "the mode of manufacturing the Sugar being so different from what it was formerly, as I explained to you in my Letters of last Years," as a result, "the Sugar is saved the Rum lost."[59] This new method of manufacture associated with the transition to Bourbon cane may explain why rum production never recovered on Newton or Seawell and perhaps that repair of the distillery was considered not a worthwhile investment.

Barbados, 99-112; McCusker, R*um and the American* Revolution, 128-228; David Hancock, *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735–1785* (Cambridge, UK: Cambridge University Press, 1995), 146-148.

[56] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

[57] McCusker and Menard, *The Economy of British America 1607-1789*, 165.

[58] "Sam Wood to Thomas Lane," October 15, 1797 MS 523/322, Newton Family Papers.

[59] "Sam Wood to Thomas Lane," May 3, 1797 MS 523/303, Newton Family Papers.

SUGAR AND RUM PRICES

While it is tempting to merely view export commodities such as sugar and rum in purely monetised terms, they were also internationally traded consumer goods with associated weights, volumes and markedly fluctuating prices. The annual abstracts also sometimes record the absolute amount of sugar sold in a given year in both hogsheads and pounds and the amount of rum sold in gallons.[60] For some of the years in which the absolute quantity of rum or sugar is not recorded, it can be calculated by dividing the monetary value by unit price, while in other cases where neither amount or unit price is recorded, it must simply be estimated.[61] Given the total monetary value and total amount, the average unit prices of sugar and rum for each individual year can thus be calculated for all three plantations. Tables 5, 6 and 7 represent the annual number of pounds of sugar and gallons of rum sold on each plantation, as well as the average rum price expressed in shillings per gallon (s/gal), and the average sugar price in shillings per hundredweight (s/cwt), as such prices were most commonly expressed at this time.[62]

[60] A hogshead is a historical unit of volume that can signify different amounts depending upon the time period and substance being measured. For example, at this time a wine hogshead was 63 gallons and a beer hogshead 52. A hogshead of sugar at this time was also equal to 63 gallons, the same volume as a hogshead of wine. See Ronald Edward Zupko, *A Dictionary of Weights and Measures for the British Isles: The Middle Ages to the Twentieth Century* (Philadelphia: The American Philosophical Society, 1985), 185-189; John J. McCusker, "Weights and Measures in the Colonial Sugar Trade" in J. McCusker, ed., *Essays in the Economic History of the Atlantic World* (London: Routledge, 1997): 76-101.

[61] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

[62] The hundredweight was a unit of mass most commonly used to measure sugar, salt and fish. A "long" hundredweight was equal to 112 pounds and a "short hundredweight" was equal to 100 pounds. In the Annual Abstracts of the Newton Papers, although it is not stated, it can be deduced that the short hundredweight is used for sugar, and the long hundredweight used for fish. See Zupko, *A Dictionary of Weights and Measures for the British Isles*, 190-197; McCusker, "Weights and Measures in the Colonial Sugar Trade."

Table 5. *Amount and Price of Sugar and Rum on Newton Plantation (1771-1815)*

Year	Sugar (lbs)	Price (s/cwt)	Rum (gallons)	Price (s/gal)
1771	33990	39.6	4111	2
1773	54752	43.4	6738	2.27
1774	48811	43.3	5508	2
1775	25435	41.7	2622	2.01
1776	21798	45.2	2399	1.69
1777	87878	48.5	9339	2.36
1778	40645	50.8	2864	2.95
1779	94694	47.6	10498	2.86
1782	24840	50	1108	3.14
1783	13605	23.8	541	3.63
1784	33906	28.1	1087	2.05
1785	189991	28.8	9563	1.77
1786	130311	33.1	10994	1.75
1788	135354	34.5	10185	1.84
1789	82624	42.6	7624	1.84
1790	99250	37.5	9608	2.05
1791	100023	52.5	6579	2.01
1792	152442	44.7	6655	2.47
1793	80010	48.5	5228	2.71
1794	71019	35	2831	2.01
1795	60663	40	3495	2.47
1796	98888	51.6	5583	4.11
1797	40800	52.9	2000	4.19
1798	255000	45	10898	3.38
1799	357000	47	9041	4.47
1800	78200	45.5	5000	3.51
1801	31500	46.7	2500	3.22
1802	410969	30.2	15000	2.69
1803	180000	37.8	11000	3.13
1804	80454	37.8	2698	3.61
1805	233369	41.1	8207	2.9
1806	166090	37.5	5453	2.41
1807	227613	25.1	6415	2.23
1808	171975	35	6686	2.68
1809	235445	35.1	8860	3.04
1810	159016	37.9	4312	2.78
1811	197116	34.9	5883	2.78
1812	193990	35.6	7295	3
1813	119118	43.8	4710	3.04
1814	244707	50	8284	2.93
1815	187600	50	6154	3.16
Total	5250891		255556	
Average	128071	39.8	6233	2.67

Note: Some values, particularly between 1797 and 1803, are estimates or extrapolations as the amount of sugar in pounds and amount of rum in gallons was not recorded.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

Table 6. *Amount and Price of Sugar and Rum on Seawell Plantation (1771-1804)*

Year	Sugar (lbs)	Price (s/cwt)	Rum (gallons)	Price (s/gal)
1771	38833	32.4	4478	2.12
1773	71340	36.6	7344	2.31
1774	76793	37.5	10120	2.02
1775	13421	33.3	1193	2.25
1776	90145	41.5	11908	1.82
1777	55270	42.8	5776	2.46
1778	28458	46.9	2348	2.91
1779	64565	46.9	6774	2.82
1782	58363	45.3	1608	3.49
1783	2913	36.1	86	3.67
1784	11331	25.1	855	2.06
1785	59599	37.5	9565	1.81
1786	47135	37	6655	1.7
1788	142988	32.6	8718	1.85
1789	38116	43.6	3641	1.84
1790	54000	32.3	3704	2.09
1791	75753	54.4	5246	2.01
1792	189235	41.5	11418	2.57
1793	120000	35.3	5189	2.76
1794	83601	35	3253	2.07
1795	14252	43.2	675	2.86
1796	79763	52.4	3645	4.12
1797	35200	58.4	1800	3.53
1798	120000	49.6	3884	3.16
1799	148080	55.5	4214	2.87
1800	16000	42.4	800	3.51
1801	5365	41.3	150	4.13
1802	153267	30	7027	2.28
1803	100000	37.4	5500	2.47
1804	9749	38.2	896	3.84
Total	2003535		138470	
Average	66785	41.2	4616	2.33

Note: Some values, particularly between 1797 and 1803, are estimates or extrapolations as the amount of sugar in pounds and amount of rum in gallons was not recorded.

Sources: Abstract of Accounts, 1771-1804, MS 523/34-155, Newton Family Papers.

Table 7. *Amount and Price of Sugar and Rum on Mount Alleyne Plantation (1771-1783)*

Mt Alleyne Year	**Sugar (lbs)**	**Price (s/cwt)**	**Rum (gallons)**	**Price (s/gal)**
1771	86568	36.6	9228	2
1773	39377	40.5	5294	2.29
1774	68894	39.2	9087	2
1775	48927	38.2	5919	2.03
1776	58295	43.5	6321	1.55
1777	53802	44.4	6228	2.37
1778	33712	47	3083	2.87
1779	34529	47	3078	2.69
1782	82261	45.4	4238	3.17
1783	24596	43.7	1250	3.79
Total	530961		53726	
Average	53096	42	5372.6	2.24

Sources: Abstract of Accounts, 1771-1783, MS 523/34-54, Newton Family Papers.

The average sale price of a gallon of rum on each plantation in 1771 was somewhat higher than the average price for Barbados from 1768-1772 of 1.875 shillings estimated by John J. McCusker in *Rum and the American Revolution*, suggesting that the plantations produced relatively high quality rum with a higher ratio of molasses to rum yield.[63] This notion is supported planter Patrick Kein's assertion in *An Essay upon Pen-Keeping and* Plantership, that "The Barbadian think themselves the best distillers in all the islands."[64] Given the poor state of the distillery, this could perhaps be attributed to a particularly skilled enslaved distiller, an intriguing and often overlooked manifestation of slave agency. As can be clearly seen from the tables, sugar and rum production continued throughout this period on all plantations. Although they were gravely affected by the Great Hurricane of 1780, production of sugar and rum nonetheless recovered afterwards. Given the average number of slaves on each plantation, the

[63] McCusker, R*um and the American* Revolution, 128-228; John J. McCusker, "The Rum Trade and the Balance of Payments of the Thirteen Colonies, 1650-1775," *The Journal of Economic History* 30.1 (1970): 244-247; Smith, *Caribbean Rum: A Social and Economic History*, 55.
[64] Kein, *An Essay upon Pen-Keeping and Plantership*, 78.

average annual production of sugar and rum per slave can also be calculated. Over the entirety of their accounts, Newton produced an average of 504 pounds of sugar per slave, Seawell 367 and Mount Alleyne 330. Annually, Newton produced an average of 24.5 gallons of rum per slave, Seawell 25.4 and Mount Alleyne 33.4.[65]

The average sale price of sugar and rum varied considerably from year to year on each estate. Significantly, the fluctuation in rum prices can be directly correlated remarkably closely with the major wars in which Great Britain was involved during this period. The price was low in the 1770s, but spiked with the outbreak of American Revolutionary War (1776-1783) and remained high until the war ended. The price then decreased and remained low during the subsequent peace, but spiked again with the outbreak of the French Revolutionary Wars (1792-1802). The rum price subsequently remained relatively high throughout the protracted period of the Napoleonic Wars. Brief periods of peace in 1802, before the outbreak of the War of the Third Coalition, and 1807, before the outbreak of the Peninsular War, also corresponded with lower rum prices.[66] This positive correlation between war and higher rum price can perhaps be explained in part by the massive enlistment and impressment into the Royal Navy that accompanied the outbreak of war, and the rum ration accorded to sailors during this period, which would dramatically increase the demand for rum (See Table 8).[67] The

[65] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[66] For a history of the French Revolutionary Wars and Napoleonic Wars, see Gregory Fremont-Barnes, *The Encyclopedia of the French Revolutionary and Napoleonic Wars: a Political, Social, and Military History* (Santa Barbara, Calif.: ABC-CLIO, 2006).
[67] For other historians suggesting this correlation, see McCusker, *Rum and the American* Revolution, *128*-228. For more on British naval impressment, see Denver Alexander Brunsman, *The Evil Necessity: British Naval Impressment in the Eighteenth-Century Atlantic World* (Charlottesville: University of Virginia Press,

disparity between peacetime and wartime prices is clear: at over a shilling per gallon more, wartime prices were over 50% higher than peacetime prices.

Table 8. *Rum Price in War and in Peace*

Year	War/Peace	Newton	Seawell	Mt. Alleyne
1771-1776	Peace	1.99	2.1	1.97
1777-1783	*War (American Revolutionary)*	*2.99*	*3.07*	*2.98*
1784-1791	Peace	1.9	1.91	
1792-1801	*War (French Revolutionary)*	*3.25*	*3.16*	
1802	Peace	2.69	2.28	
1803-1806	*War (Third Coalition)*	*3.01*	*3.16*	
1807	Peace	2.23		
1808-1815	*War (Peninsular)*	*2.93*		
	Peace (Average)	2.01	2.01	1.97
	War (Average)	*3.07*	*3.13*	*2.98*

Note: Data is unavailable for 1772, 1780-1781. War years are italicised.
Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

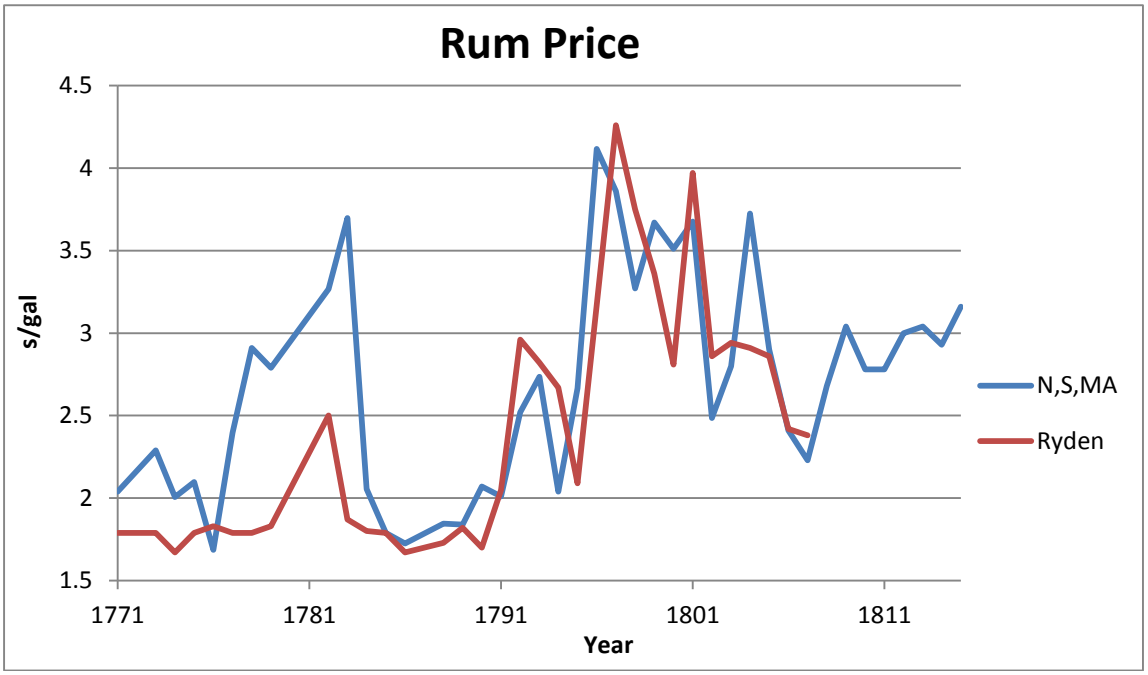
Newton, Seawell and Mount Alleyen plantations cannot simply be assumed to be wholly representative of sugar plantations in Barbados or in the British West Indies more broadly. Therefore, a direct comparison of variables such as rum and sugar price with other Caribbean plantations is very useful and instructive. Given its resurrection of the Decline Thesis, predicated upon the notion of collapsing British West Indian sugar prices, the book *West Indian Slavery and Abolition 1783-1807* by David Beck Ryden makes for an excellent comparison.[68] The similarities between the two sets of prices are immediately apparent, with Ryden's numbers showing an analogous increase in price associated with the French Revolutionary War. However prior to and during the

2013); Nicholas Rogers, *The Press Gang: Naval Impressment and its Opponents in Georgian Britain* (London: Continuum, 2007). For more on the rum ration in the Royal Navy, see A.J. Pack*, Nelson's Blood: The Story of Naval Rum* (Annapolis: Naval Institute Press, 1996).

[68] Ryden, *West Indian Slavery and Abolition, 1783-1807*, 295-296.

American Revolutionary War, the prices on the three Barbadian plantations are considerably higher than Ryden's numbers (See Figure 5).[69]

Figure 5. *Average rum price in Newton, Seawell, Mount Alleyne and rum prices in Jamaica*



Note: Data is unavailable for 1772, 1780-1781.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ryden, *West Indian Slavery and Abolition*, 295-296.

For this period, Ryden's low numbers are also at odds with the findings of John J. McCusker who estimates the average price of Jamaican rum to be 3.25 shillings per gallon, compared to just 1.875 shillings per gallon in Barbados.[70] Given the relatively high prices for rum on these Barbadian plantations and the qualitative endorsement of the quality of Barbadian rum by Patrick Kein, Samuel Martin and others, it is perhaps rum that helped sugar plantations in Barbados weather the tough economic times at the

[69] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ryden, *West Indian Slavery and Abolition, 1783-1807*, 295-296.

[70] McCusker, R*um and the American Revolution*, 128-228; Smith, *Caribbean Rum: A Social and Economic History*, 55.

end of the eighteenth century.[71] If Barbadian rum prices in fact remained similar to those in Jamaica over this period, this could represent one reason why the Decline Thesis that Ryden has reinvigorated may not be so applicable to Barbados.[72]

Clearly, according to the tables above, the fluctuation in sugar prices, in shillings per hundredweight, on Newton, Seawell and Mount Alleyne do not exhibit the same wartime-peacetime dichotomy as do the rum prices because sugar did not experience the same spike in wartime demand as rum which was associated with rum rationing (See Figure 6). Furthermore, compared to the prices in Jamaica listed by Ryden, the Barbadian sugar prices are considerably higher.[73] Like with rum distilling, Kein also claimed that when it came to determining the optimal ratio of sugar quantity to quality, "the windward island managers exceed all others."[74] This did not necessarily represent expertise on the part of the planters or managers, however, but the highly skilled enslaved boilers and distillers. As Kein, a Jamaican planter, also noted, " I candidly acknowledge, that I first learned to make sugar from a Papaw negro, and rum from a Mundingo negro, named London, for which I gave them a cob each; they belonged to Fontabelle estate and the Papaw negro, named Isaac, was the best disposed and most faithful fellow I ever met with, and as a negro in general, the most intelligent."[75]

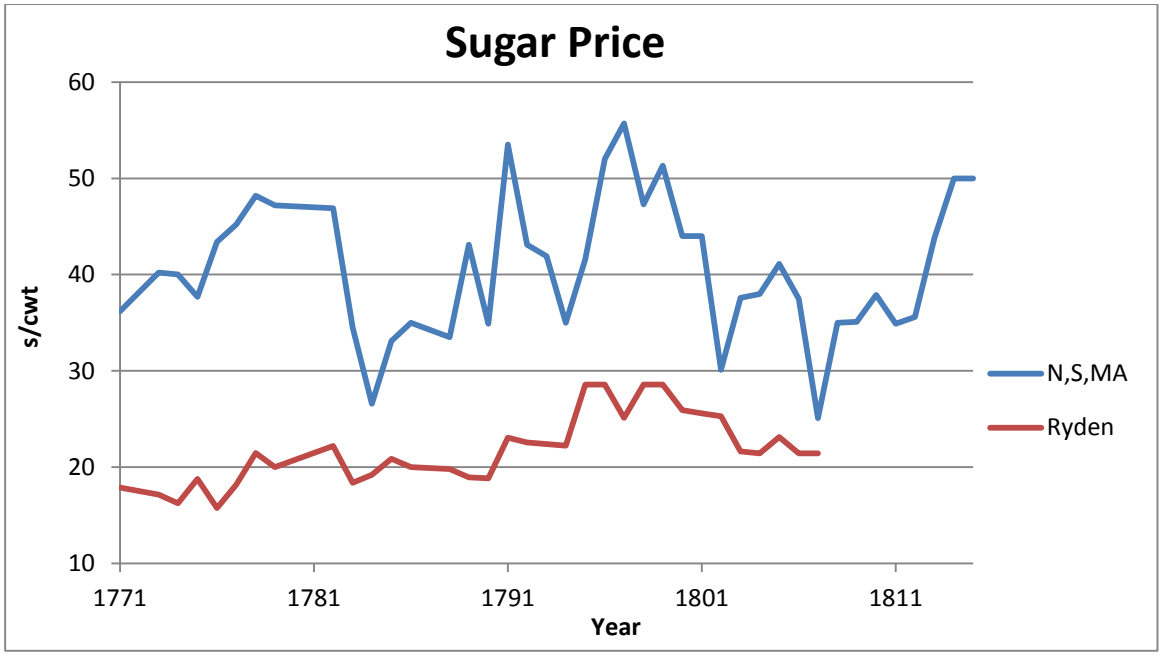
---

[71] For Kein and Martin discussing Barbadian Rum, see Kein, *An Essay upon Pen-Keeping and Plantership*, 78; Martin, *An Essay upon Plantership*, 43-49.
[72] Ryden, "Does Decline Make Sense?"; Ryden, *West Indian Slavery and Abolition*.
[73] Ryden, *West Indian Slavery and Abolition, 1783-1807*, 295-296; Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[74] Kein, *An Essay upon Pen-Keeping and Plantership*, 74.
[75] *Ibid.*, 70.

Crucially skilled slave labourers were not limited to boilers and distillers, however. George Saer, the head cooper at Newton was a highly skilled and respected slave whom Wood wrote "would be a treasure in any society. He is an excellent workman in his own trade, a good carpenter, almost a good anything, always at work, always willing, and always ready and good-humoured - strictly honest and sober."[76] By 1796, Saer was sick with "consumption," and Wood "thought it best... tho a little expensive, not to trust to our common apothecary, but to consult a physician." Wood continued that "We let him do as he likes, work or work not... His loss would be irreparable to us. I cannot say too much of him."[77] Two years later, Saer was dying and Wood wrote "I have done everything that the greatest care, affection, and tenderness could. He has been nourished from our own table... Poor fellow! I shall miss him sincerely..."[78] Wood made sure to give Saer "a handsome funeral" that cost nearly £4 according to that year's account abstract and further requested that Thomas Lane send over from England, a "stone for the head of his grave."[79] George Saer's sister-in-law, Old Doll, was another elite slave who had once been the head housekeeper but had long since earned "a kind of right to be idle." This relative freedom from the drudgery of labour was also extended in varying degrees to members to Doll's family: her daughters Dolly and Jenny, her niece Kitty Thomas and her sister Mary-Ann.[80]

[76] "Report on the Negroes," 1796, MS 523/288.
[77] *Ibid.*
[78] "Sam Wood to Thomas Lane," July 18, 1798 MS 523/352/1.
[79] "Sam Wood to Thomas Lane," October 19, 1798 MS 523/381/1; Abstract of Accounts, 1798, MS 523/124-127, Newton Family Papers.
[80] "Report on the Negroes," 1796, MS 523/288. For more on Saer, Old Doll and elite slaves on Newton, and the diversity of labour requirements and material conditions, see Justin Roberts, "The 'Better sort'

Figure 6. *Average sugar price in Newton, Seawell, Mount Alleyne and sugar prices in Jamaica*



Note: Data is unavailable for 1772, 1780-1781.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ryden, *West Indian Slavery and Abolition*, 295-296.

Clearly, the sugar sale price from these three Barbadian plantations do exhibit significant downward spikes in the individual years of 1802 and 1807 however the subsequent upward spikes and recovery of sugar price show these to be isolated data points rather than part of a larger trend (See Table 6). Overall, the fluctuating sugar prices on Newton, Seawell and Mount Alleyne plantations give very little indication of rapidly collapsing sugar prices due to overproduction or of a Barbadian sugar industry in crisis or even deterioration as the Decline Thesis would suggest. While Ryden's assertions concerning a decline in price and profitability may hold true for Jamaica and

---

and the 'Poorer Sort': Wealth Inequalities, Family Formation and the Economy of Energy on British Caribbean Sugar Plantations, 1750-1800," *Slavery & Abolition* (forthcoming, 2014); Karl Watson, A *Kind of Right to be Idle: Old Doll, Matriarch of Newton Plantation* (Cave Hill: University of the West Indies Press, 2000).

elsewhere in the British West Indies, on these three plantations Barbados, they do not appear to be borne out by the facts.[81]

PLANTATION PROFITS

This chapter will now attempt to calculate the profits and rate of return on investment of each of Newton, Seawell and Mount Alleyne Plantations. In order to do so, it will use the formula outlined in R. Keith Aufhauser's 1974 article "Profitability of Slavery in the British Caribbean":

$$r = \frac{S - E}{K}$$

where

r = the rate of return on a unit of slave capital (a unit of slave-capital equals the total capital invested in the plantation, divided by the number of slaves).

S = gross cash income generated by the ownership of these slave-capital

E = out-of-pocket expenses associated with the upkeep of all of the capital. This includes expenditures on food plus those outlays necessary to maintain the value of the capital stock in the face of depreciation. Also included are excises taxes, agents' fees and the like.

K = the capital investment per slave necessary to generate the net income S - E.[82]

Utilising this formula is more challenging than merely reading the account abstracts because it requires a numeration of each plantation's capital value, which is

[81] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ryden, *West Indian Slavery and Abolition*, 295-296.

[82] R Keith Aufhauser, "Profitability of Slavery in the British Caribbean," *Journal of Interdisciplinary History* 5.1 (1974): 45-67. One potential limitation of Auhauser's model is that it does not take into consideration debt that the plantations may be carrying due to mortgages. While this scenario does not apply to these three plantations in these particular years, it did apply to many other Barbadian plantations such as Turner's Hall. For the Turner's Hall accounts, see Abstract of Accounts, 1770-1793, E 20680-E 20700, Fitzherbert Papers.

not regularly recorded in the annual financial abstracts. In order to estimate year-to-year capital values for each plantation, this thesis will apply the specific methodology articulated in J.R. Ward's important 1978 article "The Profitability of Sugar Planting in the British West Indies, 1650-1834."[83] In it, Ward proposes a formula to estimate the value of a sugar plantation expressed as the capital employed in slaves, livestock, buildings, utensils and cultivated land per slave, multiplied by the total number of slaves on the plantation. Ward groups these variables into three distinct geographic areas, Jamaica, the Lesser Antilles and Guiana, and across six discrete time periods, 1650-1748, 1749-1782, 1783-1791, 1792-1819 and 1820-1834 (See Table 9).[84]

Table 9. *Capital employed per slave*

	Slave	Livestock	Building utensils	Cultivated land	Total
Lesser Antilles			2 acres per slave		
1650-1748	22	5	8	10	45
1749-1782	35	5	15	14	69
1783-1792	40	6	20	16	82
1792-1798	45	7	25	20	97
1799-1819	45	8	30	24	126
1820-1834	64	6	25	20	90
			3 acres per slave		
Jamaica					
1670-1748	22	10	10	15	57
1749-1782	35	10	25	21	91
1783-1791	40	12	30	24	106
1792-1798	45	13	35	30	123
1799-1819	64	14	40	36	154
1820-1834	39	12	35	30	116
			2 acres per slave		
British Guiana					
1820-1834	39	1	45	35	120

Source: Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 208.

[83] Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834."
[84] *Ibid*., 203.

This thesis will concern itself only with the Lesser Antilles and the middle three of these time periods. As Ward's listed values for capital employed per slave span a period of many years, to estimate the capital employed per slave on a year-to-year basis, one must perform a linear extrapolation of Ward's data from 1771 to 1815.[85] This extrapolation allows for a much more steady, linear and realistic rate of inflation that makes year to year comparison much more meaningful. The values obtained by this linear extrapolation are contained in the following tables in the column entitled "£/Slave." Once this value is determined for each year, it can be multiplied by the number of slaves present on the plantation that year to yield an estimate of total capital value. These values are expressed in the column entitled "Value." Dividing an annual profit value by its corresponding total capital value and multiplying by 100 thus yields annual rate of return, as expressed as a percentage of total capital investment. These values are expressed in the column entitled "%Return." Tables 11, 12 and 13 express the credits, debits, profits, number of slaves, capital employed per slave, capital value and percent return for each corresponding year on Newton, Seawell and Mount Alleyne plantations.[86]

[85] *Ibid*., 208.

[86] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.The number of slaves was extrapolated from the levy paid on slaves in each annual financial abstract.

Table 10. *Annual Rate of Return on Newton Plantation (1771-1815)*

Year	Credits	Debits	Profit	Slaves	£/Slave	Value	%Return
1771	1153	878	275	254	72	18288	1.5
1773	1964	1179	785	251	72	18072	4.3
1774	1729	1320	409	262	73	19126	2.1
1775	842	1552	-710	262	73	19126	-3.7
1776	777	930	-153	264	74	19536	-0.8
1777	3296	1270	2026	265	74	19610	10.3
1778	1530	1110	420	265	75	19875	2.1
1779	3948	1555	2393	241	75	18075	13.2
1782	912	704	208	241	77	18557	1.1
1783	303	804	-501	241	78	18798	-2.7
1784	770	2223	-1453	242	79	19118	-7.6
1785	3883	2596	1287	248	80	19840	6.5
1786	3351	1316	2035	255	81	20655	9.9
1787	2931	973	1958	255	82	20910	9.4
1788	3632	1360	2272	255	83	21165	10.7
1789	2702	1039	1663	255	85	21675	7.7
1790	3147	1224	1923	262	87	22794	8.4
1791	3586	885	2701	262	89	23318	11.6
1792	4540	1024	3516	263	91	23933	14.7
1793	2879	1339	1540	265	93	24645	6.2
1794	1729	1237	492	258	95	24510	2
1795	1862	960	902	251	97	24347	3.7
1796	3990	2080	1910	255	99	25245	7.6
1797	1673	1955	-282	255	101	25755	-1.1
1798	8491	2438	6053	255	103	26265	23
1799	11005	4842	6163	255	105	26775	23
1800	3128	2189	939	261	107	27927	3.4
1801	1254	1988	-734	254	109	27686	-2.7
1802	9304	4531	4773	254	111	28194	16.9
1803	7957	4719	3238	254	113	28702	11.3
1804	1946	773	1173	254	115	29210	4
1805	7212	2294	4918	254	117	29718	16.5
1806	4452	2092	2360	254	119	30226	7.8
1807	4135	3149	986	254	121	30734	3.2
1808	5518	2332	3186	256	123	31488	10.1
1809	6595	2454	4141	265	126	33390	12.4
1810	4844	3045	1799	255	128	32640	5.5
1811	5486	3229	2257	243	130	31590	7.1
1812	5223	2701	2522	239	132	31548	8
1813	4764	1619	3145	237	134	31758	9.9
1814	9048	1928	7120	247	136	33592	21.2
1815	7039	1615	5424	247	138	34086	15.9
Total	164530	79451	85079				
Average	3917	1892	2026			25060	8.1

Source: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 208.

Table 11. *Annual Rate of Return on Seawell Plantation (1771-1804)*

Year	Credits	Debits	Profit	Slaves	£/Slave	Value	%Return
1771	1103	899	204	168	72	12096	1.7
1773	2205	907	1298	171	72	12312	10.5
1774	2498	944	1554	170	73	12410	12.5
1775	376	664	-288	170	73	12410	-2.3
1776	2980	713	2267	172	74	12728	17.8
1777	1913	743	1170	169	74	12506	9.4
1778	1060	792	268	172	75	12900	2.1
1779	2502	960	1542	176	75	13200	11.7
1782	1768	1386	382	188	77	14476	2.6
1783	79	940	-861	188	78	14664	-5.9
1784	329	2532	-2203	188	79	14852	-14.8
1785	2097	2033	64	192	80	15360	0.4
1786	1667	785	882	189	81	15309	5.8
1787	3074	765	2309	189	82	15498	14.9
1788	3984	1120	2864	189	83	15687	18.3
1789	1839	752	1087	189	85	16065	6.8
1790	2019	991	1028	189	87	16443	6.3
1791	2790	917	1873	194	89	17266	10.8
1792	5824	1344	4480	193	91	17563	25.5
1793	3224	1039	2185	195	93	18135	12
1794	2011	832	1179	194	95	18430	6.4
1795	444	847	-403	180	97	17460	-2.3
1796	3341	1172	2169	183	99	18117	12
1797	2681	925	1756	178	101	17978	9.8
1798	4680	1103	3577	183	103	18849	19
1799	5030	1967	3063	191	105	20055	15.3
1800	1047	1289	-242	191	107	20437	-1.2
1801	1458	1023	435	174	109	18966	2.3
1802	3415	1716	1699	174	111	19314	8.8
1803	4208	1993	2215	174	113	19662	11.3
1804	1809	487	1322	174	115	20010	6.6
Total	73455	34580	38875				
Average	2286	1085	1201			15792	7.6

Source: Abstract of Accounts, 1771-1804, MS 523/34-155, Newton Family Papers; Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 208.

Table 12. *Annual Rate of Return on Mount Alleyne Plantation (1771-1783*

Year	Credits	Debits	Profit	Slaves	£/Slave	Value	%Return
1771	2571	1202	1369	164	72	11808	11.6
1773	1471	1161	310	155	72	11160	2.8
1774	2259	898	1361	157	73	11461	11.9
1775	1578	742	836	155	73	11315	7.4
1776	1774	667	1107	160	74	11840	9.3
1777	1952	852	1100	164	74	12136	9.1
1778	1271	660	611	164	75	12300	5
1779	1256	662	594	164	75	12300	4.8
1782	2814	736	2078	164	77	12628	16.5
1783	857	723	134	164	78	12792	1
Total	17803	8303	9500				
Average	1780	830	950			11974	7.9

Source: Abstract of Accounts, 1771-1783, MS 523/34-54, Newton Family Papers; Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 208.

Clearly, Newton, Seawell and Mount Alleyne plantations were consistently profitable enterprises, yielding an average rate of return of 8.1%, 7.6% and 7.9% respectively over the years that were examined. This made all three of these estates more profitable than Codrington plantation in Barbados, for example, which only averaged about 2% return throughout this period according to Frank J. Klingberg and according to Ward, and also more profitable than the average plantation on the island as a whole, which ranged from 2-6% according to Ward.[87] The profits on Newton, Seawell and Mount Alleyne are just slightly higher than the average for British West Indian sugar estates as estimated by Michael Craton, and much higher than the 2-5% estimated by Simon David Smith for the Barbadian sugar estates owned by the

[87] For Codrington plantation, see Frank J. Klingberg, ed, *Codrington Chronicle: An Experiment in Anglican Altruism on a Barbados Plantation, 1710-1834* (Berkeley: University of California Press, 1949), 78-82. For the average across Barbados, see Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 207, 210.

prominent Lascelles family.[88] Additionally, these rates of return compare rather favourably to other risky and highly profitable contemporaneous ventures such as the transatlantic slave trade as estimated by Roger Antsey and others.[89] Newton, Seawell and Mount Alleyne plantations were less profitable than Turner's Hall, another Barbadian sugar estate located in the Scotland District, or than Parham plantation in Antigua, Mount Travers plantation in Nevis, Mesopotamia plantation in Jamaica or Grand Bras plantation in Grenada, for example.[90] However, average profit rate does not tell the full story of the wildly fluctuating annual rates of return associated with sugar planting, that made it not only one of the most profitable, but also one of the most risky

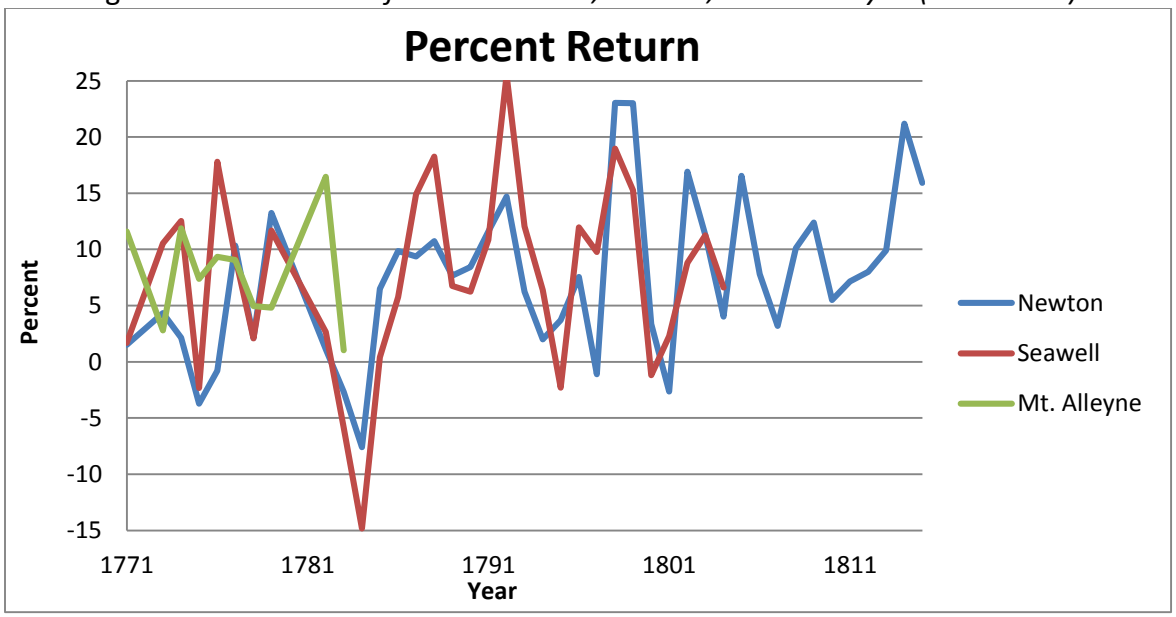
[88] Michael Craton, *Sinews of Empire: A Short History of British Slavery* (Garden City, NY: Anchor Press, 1974), 138-13; Simon David Smith, *Slavery, Family and Gentry Capitalism in the British Atlantic: The World of the Lascelles, 1648–1834* (New York: Cambridge University Press, 2006).

[89] Roberts, *Uncertain* Business, 251; Roger Anstey, *The Atlantic Slave Trade and British Abolition* (Atlantic Highlands, NJ: Humanities Press, 1975). Estimates for the average rates of return for voyages in the transatlantic slave trade can vary from as little as 7% to as high as 30%. Antsey's estimate of 9.5 per cent per venture is typically taken as one of the more reliable. On the whole, the transatlantic slave trade was probably slightly more profitable, and slightly more risky than sugar planting. For more thorough discussions of the profit rates and risks involved with the transatlantic slave trade in the late eighteenth century see Stephen Behrendt, "The British Slave Trade, 1785–1807: Volume, Profitability and Mortality" (Ph.D. diss., University of Wisconsin, Madison, 1993), 105–8; David Richardson, "The Costs of Survival: the Transport of Slaves in the Middle Passage and the Profitability of the Eighteenth-Century British Slave Trade," *Explorations in Economic History*, 24.2 (1987): 178–96; William Darity Jr, "Profitability of British trade in Slaves Once Again," *Explorations in Economic History*, 26.3 (1989): 380–4; David Richardson "Accounting for Profits in the British Trade in Slaves: Reply to William Darity," *Explorations in Economic History*, 26.4 (1989): 492–9; William Darity, "The Numbers Game and the Profitability of the British trade in Slaves," *Explorations in Economic History*, 26.3 (1989): 693–703; David Eltis, Frank D. Lewis and David Richardson, "Slave Prices, the African Slave Trade, and Productivity in the Caribbean, 1674-1807," *The Economic History Review* 58.4 (2005): 673-700; Sherryllynne Haggerty, "Liverpool, the Slave Trade, and the British Atlantic Empire, c. 1750-75," in Sherryllynne Haggerty, Anthony Webster and Nicholas J. White, eds. *The Empire in One City? Liverpool's Inconvenient Imperial Past* (Manchester: Manchester University Press, 2009): 17-34. For comparative examples of the rates of return in other eighteenth-century Atlantic world business enterprises such as British shipping, see Tony Barrow, "The Account Books of the Disko Bay of Newcastle, 1784–1802: a Case Study of Vessel Management Costs in the British Shipping Industry," Mariner's Mirror, 81.2 (1995): 171–81.

[90] For Turner's Hall, see Roberts, "Uncertain Business," 256; Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 210-212.

investments in the early modern Atlantic world.[91] While Barbadian plantations may not have always garnered the highest profits, contemporary Barbadian planter Edwin Lascelles and others stressed that they tended to have the most certain and consistent profits, perhaps helping to explain why Barbadian sugar planting remained an attractive investment throughout the tough and uncertain economic times at the end of the eighteenth century.[92] The highest annual returns recorded were 23% for Newton in 1798 and 1799, 25.5% for Seawell in 1792 and 16.5% for Mount Alleyne in 1782. The lowest annual rates of return were -7.6%, -14.8% and 1% respectively (See Figure 7).[93]

Figure 7. *Percent rate of return Newton, Seawell, Mount Alleyne (1771-1815)*



Note: Data is unavailable for 1772, 1780-1781. Values from 1787 contain estimates due to no surviving annual abstract.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 208.

[91] For a discussion of risk management in British agriculture, see David R. Stead, "Risk and Risk Management in English Agriculture, c1750-1850," *Economic History Review* 57.2 (2004): 334-361. For the transatlantic slave trade, Sherryllynne Haggerty, "Risk and Risk Management in the Liverpool Slave Trade," *Business History* 51.6 (2010): 817-834.

[92] Lascelles discusses "that variation in the nett produce so justly objected to in Barbados estates." Lascelles, *Instructions for the Management of a Plantation in Barbadoes*, 1; Patrick Kein, *An Essay upon Pen-Keeping and Plantership* (Kingston Jamaica: His Majesty's Printing Office, 1796), 26.

[93] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

The unadulterated pursuit of profit for profit's sake was clearly not the only the motivation of planters, attorneys and plantation managers however. Other motives included the pursuit of prestige, respect and social capital, as was clearly the case in the planter/attorney association between Thomas and John Lane and the highly prominent John Gay Alleyne who frequently highlighted the friendly rather than business nature of their relationship.[94] Additionally, a kind of "moral capital," particularly in the context of Amelioration and the Abolitionist arguments against the transatlantic slave trade pervaded the psyches of managers such as Sampson Wood, who stressed the patriarchal and benevolently paternalist nature of his position.[95] Finally, profit also had to be balanced against risk management and sustainability with the short term pursuit of maximum profits often being mitigated by desires to preserve soil quality and the health of the slave population.

There are some discrepancies in the findings of this thesis and those of J.R. Ward's article, which also examined the profits and rates of return Newton, Seawell and Mount Alleyne plantations. While this thesis calculated the precise annual profits from the abstracts, and extrapolated the exact number of slaves from the levies paid thereon for each individual year, Ward, whose article examined 29 plantations in nine different colonies, appears to be have been perhaps somewhat less precise in the methodology,

[94] "J.G. Alleyne to Thomas Lane," June 21, 1794, MS 523/293 Newton Family Papers.
[95] "Sam Wood to Thomas Lane," May 7, 1798, MS 523/340/1, Newton Family Papers; Sam Wood to Thomas Lane," October 19, 1798, MS 523/381/1, Newton Family Papers. For the origin of the term "moral capital" in the context of Abolitionism, see Christopher L. Brown, *Moral Capital: Foundations of British Abolitionism* (Chapel Hill: University of North Carolina Press, 2006).

relying upon estimates and averages.[96] Also, Ward did not display tabulated profits on an annual basis, instead estimating average profits for a certain set of years.[97] Using the values drawn from the financial abstracts, alternative figures for profit and rate of return can be calculated for the corresponding runs of years used in the Ward article to demonstrate the divergent values therein (See Table 13).

Table 13. *Profit and percent rate of return Newton, Seawell, Mount Alleyne, calculated from the financial abstracts compared to Ward's values.*

Year	Average Profit	Return	Average Profit (Ward)	Return (Ward)
		Newton		
1776-1782	979	5.1	391	2.3
1783-1791	1321	6.3	1570	7.6
1792-1798	2019	8.1	1495	5.9
1799-1815	3142	10.3	2313	7.2
		Seawell		
1776-1782	1126	8.6	829	6.7
1783-1791	783	5	575	3.7
1792-1798	2135	11.8	1509	8.4
		Mount Alleyne		
1776-1782	1098	9	829	6.7

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 210.

It is noteworthy that in almost every case in the table above, the methodology employed in this thesis calculates profit rates higher than those found by Ward. The only exception to this is on Newton plantation between the years of 1783-1791.[98] This is curious as it therefore does not represent any consistent systematic error or variation on the part of the two methodologies. Ward may not have examined each account

[96] Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 210-213; Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers. Ward analyses sugar plantations in Barbados, Antigua, Nevis, St. Christopher, Jamaica, Grenada, Dominica, St. Vincent and Demerara.
[97] Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 210.
[98] Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 210; Abstract of Accounts, 1783-1791, MS 523/44-87.

abstract as rigorously and may have made other estimates, calculations and assumptions beyond those explicitly described in his influential article. Additionally, the methodology employed by Ward to approximate a plantation's value is only one proposed estimation, and not perfectly, nor universally accurate. While Ward's method is currently the best model available for estimating the capital value of West Indian sugar plantations, the fact that its formula is distilled to a singular variable, the number of slaves, means that significant fluctuations in slave populations can have very distorting effects upon the profit estimation model. While this phenomenon certainly affects the apparent profit margins of these three plantations, it is particularly acute on others such as Turner's Hall, located in the Scotland District in the north of Barbados. There, the plantation's extreme reliance upon jobbing gangs made its slave population chronically underrepresented relative to the other forms of plantation capital.[99] Additionally, when supplementary slaves were finally purchased, it was done in such an overwhelming bulk purchase that the plantation's value would have nearly doubled according to Ward's proposed equation. A model that was able to decouple the capital invested in land, buildings, utensils and livestock and express as them as independent variables, irrespective of the slave population, could potentially calculate market capitalisation, and therefore annual profit, more precisely. Furthermore, Ward does not really take into consideration the depreciation of capital value of time. A model that incorporated amortisation costs into the estimation of capital value could yield more accurate results. Finally, it is important to acknowledge the limitations inherent in any

[99] Abstract of Accounts, 1770-1793, Fitzherbert Papers; Roberts, “Uncertain Business,” 247-268.

attempt to apply modern economic analysis to historical financial documents whose creators did not fully understand modern accounting practices or economic concepts such as capital appreciation, amortisation, and inflation.[100]

Some historians such as Lowell Ragatz, Eric Williams, David Beck Ryden and Selwyn Carrington and Christer Petley have argued that the British West Indian sugar industry was in steep and inexorable decline by the time of the American Revolution, with the Barbadian planters finding themselves in particularly dire straits. This Decline Thesis ties the origins of the abolition of the transatlantic slave trade to the collapse of the sugar plantation complex, ostensibly caused by overzealous speculation, overproduction, falling prices, ecological collapse and according to some, the inherent inefficiency and unsustainability of slavery as a labour regime. Although this chapter, a modest, microeconomic analysis of the revenues of three Barbadian sugar plantations, cannot refute all of the tenets of the Decline Thesis, it can make several clear and important arguments.

First, Newton, Seawell and Mount Alleyne plantations consistently yielded significant profits despite facing a multitude of external and internal threats throughout this period.[101] Second, these profit rates were indeed somewhat higher even than previous scholarship such as that of J.R. Ward would suggest.[102] Third, although this period may have seen a sharp decline in sugar prices in Jamaica and perhaps elsewhere

[100] For the challenges and limitations that this can present, see Douglas Hall, "Incalculability as a Feature of Sugar Production During the Eighteenth-Century," *Social and Economic Studies*, 10 (1961): 340–52.
[101] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[102] Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 210; Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

in the British West Indies, as outlined by David Beck Ryden, such a dramatic drop in sugar prices was only temporary on these Barbadian sugar plantations, and recovers quickly, showing an isolated drop rather than a systematic trend.[103] Fourth, although some historians such as Justin Roberts have rightly identified a coherent strategy on the part of some planters to generate increasing amounts of rum in hard economic times to reduce freight and insurance costs, the proportion of the revenue derived from rum decreased on all three plantations throughout this period. The fact that they nonetheless remained profitable suggests a diversity of viable economic strategies at play.[104] Fifth, efforts to experiment with alternative cash crops such as cotton in the case of Seawell also constituted an effective and practicable option to maintain profits. Sixth, the price of rum on all three plantations was positively correlated with the outbreak of war, with wartime rum prices - about 50% higher than peacetime prices - potentially mitigating some of the deleterious effects wrought by the political, commercial and economic disruptions of war. This suggests a fairly inelastic demand for rum during wartime.[105] Finally, what ties all of these points together is that Barbadian sugar planters and plantation managers were consistently able to successfully react and adapt to changing political and economic circumstances in novel and evolving ways and development innovative, flexible strategies to maintain the high profit levels to which they had become accustomed.

---

[103] Ryden, *Indian Slavery and British Abolition, 1783–1807*, 295-296; Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[104] Roberts, "Uncertain Business," 259 Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[105] McCusker, R*um and the American Revolution*, 128-228; Smith, *Caribbean Rum*, 55; Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

CHAPTER 4 - "THE PRINCIPAL MAN OF BUSINESS": PLANTATION LABOUR HIERARCHY AND MANAGEMENT OF PLANTATION EXPENSES

British West Indian sugar plantations did not simply generate revenue in a vacuum - they had a wide variety of vital operating costs which were expended each year. The proper management and control of these expenses was an important component of maintaining profits, with prominent planter Edwin Lascelles arguing that "A proprietor of a plantation should put it under such a course of management that the net profits should more depend upon the smallness of the annual expense than upon the largeness of the crops."[1] Some of these annual expenditures were remunerated more or less independently of the plantation's revenue, and various other expenses were much more sporadic and discretionary in nature.[2] Having thoroughly analysed the revenues of each individual plantation, this chapter now examines the money spent by Newton, Seawell and Mount Alleyne plantations on a yearly basis and the management structure that led to these decisions. The records of financials outlays or debits in the Newton Family Papers pertaining to each of the three plantations in question, while extensive, do not span quite as lengthy a period as those pertaining to the revenues.

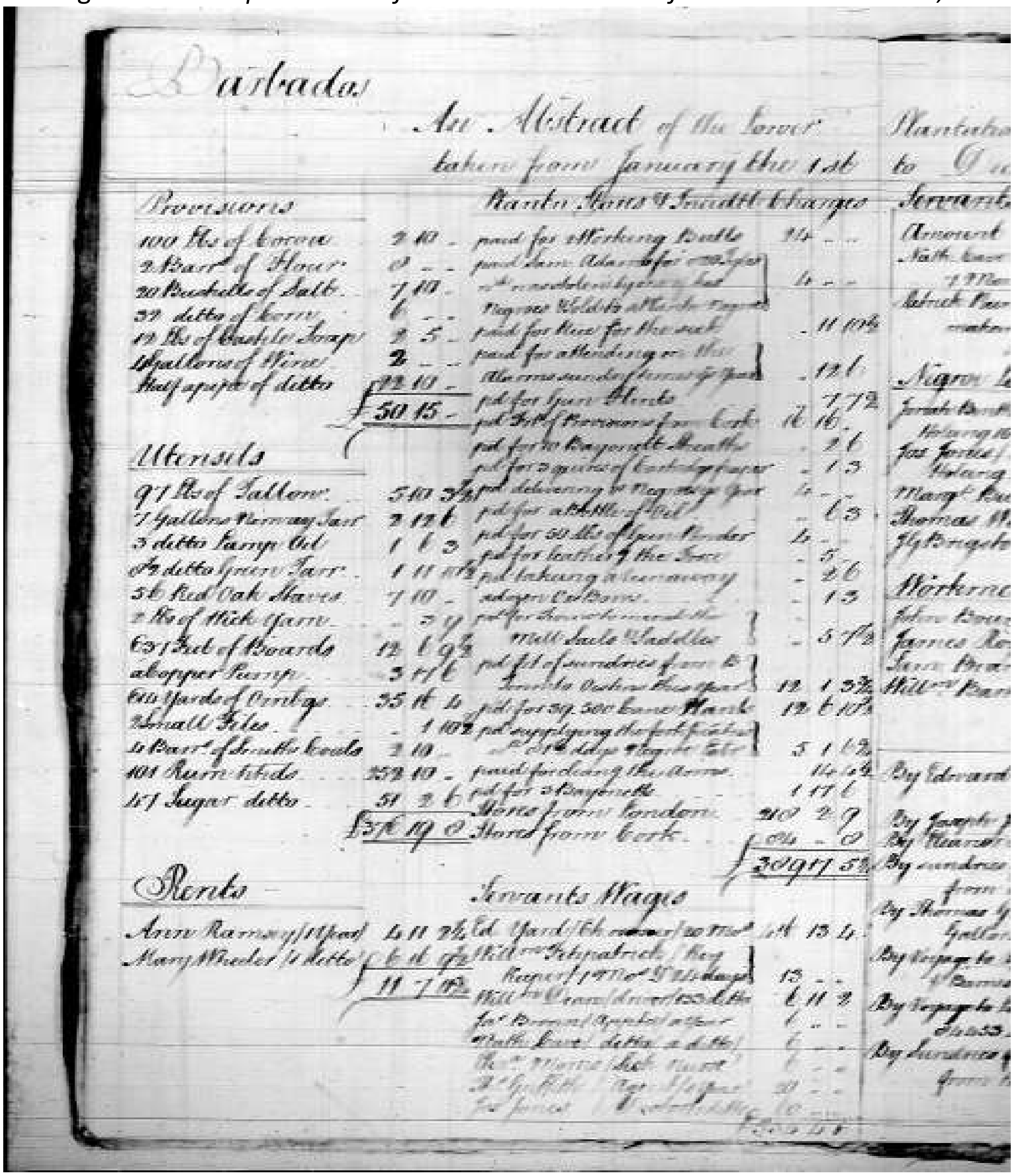
[1] Edwin Lascelles, et al. *Instructions for the Management of a Plantation in Barbadoes. And for the Treatment of Negroes* (London: [s.n.], 1786), 2.

[2] For a general overview of the expenses on sugar plantations in the British West Indies, see J. R. Ward, "The Profitability of Sugar Planting in the British West Indies, 1650–1834," *Economic History Review* 31.2 (1978): 197–213; J. R. Ward, *British West Indian Slavery, 1750–1834: The Process of Amelioration* (New York: Oxford University Press, 1988), 190-232. For Newton plantation specifically, see Jerome S. Handler and Frederick W. Lange, with Robert V. Riordan, *Plantation Slavery in Barbados: An Historical and Archaeological Investigation* (Cambridge: Harvard University Press, 1978); Justin Roberts, "Working between the Lines: Labor and Agriculture on Two Barbadian Sugar Plantations, 1796–1797," *William and Mary Quarterly* 63.3 (2006): 551–586.

This is because prior to 1771, there are no annual abstracts for any of the plantations, and while some aspects of the revenue can be reconstituted or extrapolated from the journals and ledgers, the debits simply cannot.[3] The annual abstracts span from 1771-1815 for Newton plantation, from 1771-1801 for Seawell plantation and from 1771-1783 for Mount Alleyne Plantation.[4] This lengthy period spans several transformative events in Atlantic history including the Great Hurricane of 1780, the American, French and Haitian Revolutions, the Napoleonic Wars, the War of 1812 and the British abolition of the transatlantic slave trade. The debits contained in the annual account abstracts are typically divided into seven distinct categories, "Provisions," "Utensils," "Incidental Charges" (periodically referred to as "Plantations Stores"), "Negro Hire" (periodically referred to as "Negro Holeing"), "Servant's Wages," "Workmen's Accounts" and "Levys" (periodically referred to as "Taxes") (See for example, Figure 8).[5]

[3] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers. Some individuals years have sufficient information in the journal and ledgers to extrapolate the total value of debits throughout this period, but they are not contiguous, and they do not contain enough additional information regarding the types of debits in question to make them worthy of comparison with the information contained in the annual abstracts in the context of this study.
[4] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[5] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

Figure 8. *The Expense Side of the Account Abstract for Newton Plantation, 1779*



Barbados

An Abstract of the Lower Plantation

taken from January the 1st to

Provisions

Utensils

Rents

Servants Wages

Source: Abstract of Accounts, 1779, MS 523/34-48, Newton Family Papers.

By quantifying, on a year-to-year basis, the total revenues and the sums of money spent on each category, both in absolute terms and as a percentage of the total plantation expenditure, and tracking these values and their variation over time, many conclusions can be drawn about the financial management of these three sugar

plantations throughout this period. First of all, this chapter quantifies and contextualises the yearly expenses on all three plantations more broadly. Secondly, it examines the salaries of the free, white employees, interestingly referred to as "Servant's Wages," and attempts to explain their scale in relation to one another, and their variation over time. In particular, it highlights the degree to which success and recognition as a chief overseer and attorney was predicated upon past experience, and favourable familial and personal relationships. Thirdly, it conducts a lengthy analysis of the expenditures on provisions, and asserts that contrary to some of secondary literature, the quantities of food imported by these plantations were capable of accounting for only a small fraction of the slaves' diet, which must have relied far more heavily upon food crops grown in the provision grounds of the plantations themselves, including potatoes, Guinea corn, Indian corn, yams, eddoes, plantains, peas, beans and cassava. Additionally, it further argues that after 1805, Newton was in fact a significant producer and retailer of food in the local Barbadian economy. Fourthly, it further explicates the importance of the hire of labour from "jobbing gangs," one of the two important forms of "Negro Hire" and asserts that this was of remarkably varying importance, depending upon the quality of the harvest and the size of the slave population. Fifthly, it asserts that the plantation management regime consisted of a delicate balance between owners, attorneys, plantation managers and overseers that was remarkably fluid and dynamic and fostered an internally competitive environment that potentially increased efficiency, particularly on absentee plantations. Ultimately, as with the entire thesis more broadly, this chapter argues that these planters, attorneys and plantation managers made a wide variety of

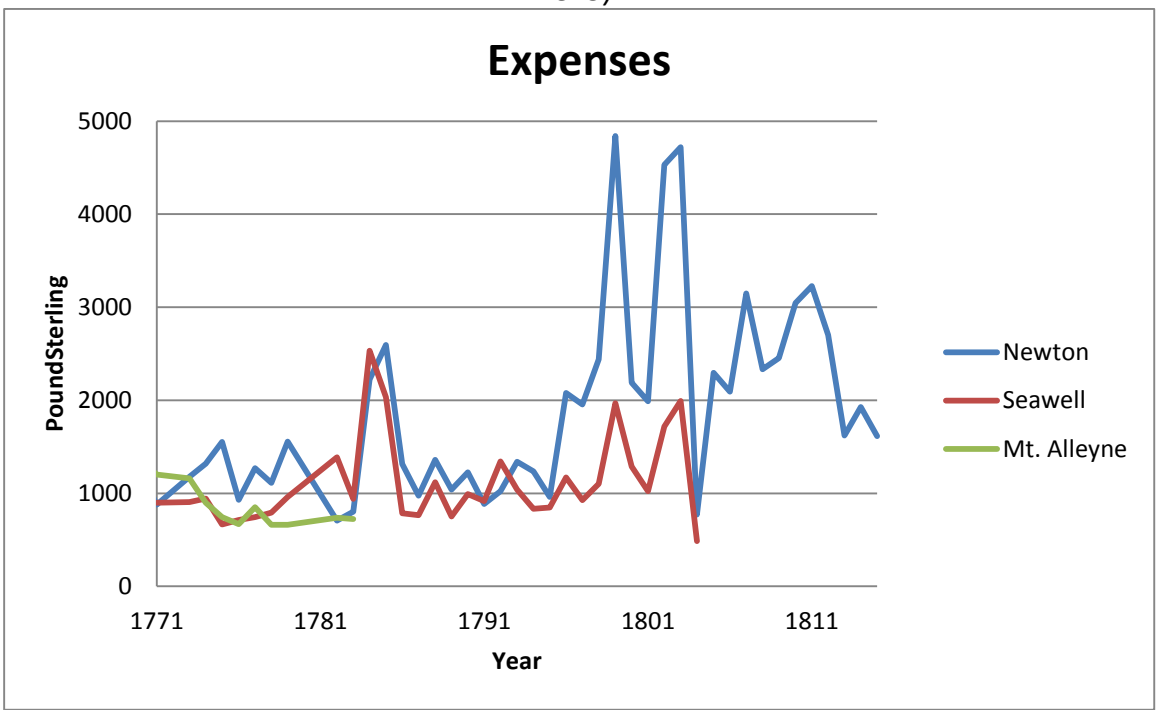
calculated, rational decisions regarding the plantations' expenses on the basis of ever-evolving economic circumstances.

Plantation expenses varied considerably over the period between 1771 and 1815, however by far the most divergent years were 1784, 1785, 1799, 1802 and 1803, all of which represented huge spikes in expenses that were associated with large one-time purchases of utensils and plantation stores.[6] It is quite noteworthy that all of these years corresponded to equivalent spikes in expenses on Newton and Seawell plantations which can be explained by the fact that both plantations relied upon the same commercial and distribution networks and thus made corresponding bulk purchases of plantation goods to save on shipping costs. It is also not mere coincidence that these particular years were the ones chosen to order large shipments of goods from Great Britain. Four of these five years fall immediately after the conclusion of major Atlantic wars in which Britain was involved that would have dramatically reduced availability of key commodities, disrupted maritime commerce and substantially increased shipping costs - the American Revolutionary War in the case of 1784 and 1785, and the French Revolutionary War in the case of 1802 and 1803 (See Figure 9).[7] The expenses in 1799 can explained in part by repairs to the sugar mills that the plantation manager Sampson

[6] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers. For the annual abstracts of the specific years in question, see MS 523 55, 56, 59, 60, 134, 135, 146, 147, 150, 151. For tables depicting the various sources of expenses on all three plantations, both in absolute and proportionate terms, see Tables A1-A6 in the appendix. For a table with the yearly expenses of Turner's Hall estate, see Tables A7 and A8.
[7] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Andrew Jackson O'Shaughnessy, *An Empire Divided: The American Revolution and the British Caribbean* (Philadelphia: University of Pennsylvania Press, 2000). For an account of merchants and transatlantic shipping and freight at this time, see David Hancock, *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735–1785* (Cambridge, UK: Cambridge University Press, 1995).

Wood was demanding.[8] In *An Essay Upon Plantership*, Samuel Martin also stressed the importance of the manager's role in keeping operating costs low, stating that “as a sugar-plantation is the most expensive kind of estate, so the clear profit of it will be more or less in proportion to the manager’s frugality."[9] Additionally, 1799, 1802 and 1803 were years of excellent sugar crops and exceptionally high revenues which made it much easier for plantation management to justify large capital expenses to the owners.[10]

Figure 9. *Value of expenses on Newton, Seawell and Mount Alleyne plantations, (1771-1815)*



Note: Data is unavailable for 1772, 1780-1781. Values from 1787 contain estimates due to no annual abstract.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

[8] “Sam Wood to Thomas Lane,” April 24, 1798, MS 523/335/1, Newton Family Papers.
[9] Samuel Martin, *An Essay Upon Plantership*, 4th edn. (London: T. Smith, 1765), 9.
[10] Abstract of Accounts, 1799-1802, MS 523/134-151, Newton Family Papers; “Sam Wood to Thomas Lane,” April 24, 1798, MS 523/335/1, Newton Family Papers.

SERVANTS' WAGES

Plantation expenses in the annual abstracts were subdivided into several distinct categories depending upon their role in the operation of the sugar plantation. One of these categories, entitled "Servants Wages" recorded the name, employment position and yearly earnings of each of the free, white workers who were employed directly by the plantations themselves. The description of these employees as "servants" is noteworthy given not only the lengthy and formative history of indentured servitude in Barbados, but also given the huge sums of money that some of these employees were paid, and the crucial responsibilities that they held regarding the operation of the plantations.[11] Although their payment was recorded as a "wage," it in fact corresponded more closely to the modern definition of a salary, because each employee was paid a yearly sum. Many of these salaries did gradually increase over time, reflecting work experience and inflation. However, they generally did not fluctuate on the basis of the amount of work performed annually.[12] The number of employees who worked directly for the plantation varied from between about five and ten on each plantation. Job titles included "Cheif Overseer" (referred to as "Manager" in later years), "Driver," "Key

[11] For the history of indentured servitude in Barbados, see Simon. P. Newman, *A New World of Labour: The Development of Plantation Slavery in the British Atlantic* (Philadelphia: University of Pennsylvania Press, 2013), 71-108, 272; Russell R. Menard, *Sweet Negotiations: Sugar, Slavery and Plantation Agriculture in Early Barbados* (Charlottesville: University of Virginia Press, 2006), 25, 29-48; Richard Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713* (Chapel Hill: University of North Carolina Press, 1972), 67-74; Hilary Beckles, *A History of Barbados: From Amerindian Settlement to Caribbean Single Market* (New York: Cambridge University Press, 2006), 18-20. Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

[12] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

Keeper," "Sick Nurse" (or "Nurse"), "Farrier," "Apprentice," "Book Poster," "Agent," "Distiller," "Doctor" (sometimes referred to as "Practitioner"), and "Apothecary."[13]

The highest paid employee on sugar plantations during this period was invariably the chief overseer who directed many of the day-to-day affairs of slave labour and plantation management.[14] While the overseer undoubtedly occupied a prominent position of authority, however, many planters were rather skeptical of their expertise, such as Patrick Kein, who wrote that "As an old planter I have chosen a topic of which the meanest overseer (but conceitedly,) thinks himself a most competent judge."[15] The individual man employed as chief overseer, as well as the salary that he made, exhibited a reasonable degree of variation on all three plantations over this period. The degree of experience of the chief overseer, as well as the size of the plantation for which he was responsible, were variables that affected his level of pay. In 1771, both Newton and Seawell each had a chief overseer, John Clarke and Edward Yard respectively, who earned £200 per year, whereas the chief overseer on the smaller Mount Alleyne plantation, John Waite, earned only half that.[16] In 1774, Waite, still earning the same

---

[13] *Ibid*

[14] For more on the specific responsibilities of Caribbean sugar plantation overseer, see B.W. Higman, *Plantation Jamaica, 1750–1850: Capital and Control in a Colonial Economy* (Kingston, Jamaica: University of the West Indies Press, 2005); Trevor Burnard, *Mastery, Tyranny and Desire: Thomas Thistlewood and His Slaves in the Anglo-Jamaican World* (Chapel Hill: University of North Carolina Press, 2004). For generic discussions of overseers in the primary prescriptive literature, see Martin, *An Essay Upon Plantership*; Dr. [David] Collins, *Practical Rules for the Management and Medical Treatment of Negro Slaves,* (London: J Barfield, 1803), 200-202. For an older study of overseers on plantations in the South, see William Kaufman Scarborough, *The Overseer: Plantation Management in the Old South* (Baton Rouge: Louisiana State University Press, 1966). The specific literature on the precise role played by overseers is still relatively sparse however, with a great deal of more detailed research yet to be done on this subject.

[15] Patrick Kein, *An Essay upon Pen-Keeping and Plantership* (Kingston Jamaica: His Majesty's Printing Office, 1796), 9.

[16] Abstract of Accounts, 1771, MS 523/34-35, Newton Family Papers.

salary, was replaced mid-year by Richard Smitten who earned a higher salary of £120 - an arrangement which continued at least until the end of the Mount Alleyne account abstracts in 1783.[17] On Newton and Seawell plantations however, the situation was rather more transitory. In 1775, John Clarke ceased to be chief overseer after the first six months, and Newton appeared to go without a chief overseer for the remainder of that year.[18] The following year Edward Yard moved (or arguably was promoted, given the plantations' relative sizes), to chief overseer of Newton, with the same salary, while his son William Yard replaced him as chief overseer of Seawell, albeit with a reduced salary of £150 per year.[19]

This example of the replacement of a father by his son was a remarkably recurrent feature of plantation labour management, both on these particular sugar plantations, and on those elsewhere in the Caribbean at this time, highlighting the critically determinative role that familial relations played in this process.[20] In this sense, the occupation of overseer can be conceptualised as a family craft, like that of an artisan or skilled tradesperson, which also showed this hereditary correlation in the early modern era. After two years of effective overseeing on Newton, Edward Yard's salary was increased to £250 while his son's salary remained unchanged.[21] In 1782, William Yard once again followed in his father's footstep's by being promoted to replace him as

[17] Abstract of Accounts, 1771-1783, MS 523/34-54, Newton Family Papers.
[18] Abstract of Accounts, 1775, MS 523/40-41, Newton Family Papers.
[19] Abstract of Accounts, 1776, MS 523/42-43, Newton Family Papers.
[20] Higman, *Plantation Jamaica 1750-1850*, 15-40. Between Newton and Seawell, there were two father-son chief overseer combinations, Edward and William Yard whose combined service spanned over twenty years, at least four of which was concurrent, and Richard and Jacob Nurse who served concurrently for a total of three years.
[21] Abstract of Accounts, 1778, MS 523/46-47, Newton Family Papers.

chief overseer of Newton plantation, the new £200 salary being a substantial increase over his old post, but still lower that of his father whom he had replaced. William Yard was replaced by William Gall at a reduced salary of £120 as chief overseer of Seawell, which appears to have had less luck maintaining a reliable overseer.[22] Gall was replaced in February of 1784 by William Fitzpatrick who was again replaced by Richard Nurse in 1786, all of whom began with the same salary throughout.[23] After four years, Nurse's salary was increased to £150, which continued until 1795.[24]

In 1794 after the death of Elizabeth Newton, the absentee owner of Newton and Seawell, the plantations passed to her cousins, John Lane, a barrister, and Thomas Lane, a solicitor, who also lived in England.[25] In November of the following year, William Yard, who, despite his lengthy and seemingly satisfactory service, was also apparently an incorrigible drunkard, was relieved by the new owners.[26] This event, in conjunction with the change in ownership seems to have precipitated a slight restructuring in the labour management and hierarchy of authority on these two plantations. After Yard's departure, Richard Nurse was temporarily named as the "Plantation Manager" of both plantations and received a dual salary for the remainder of 1795.[27] Although Richard Nurse was not able to maintain this position the following year, he was nonetheless

[22] Abstract of Accounts, 1782, MS 523/51-52, Newton Family Papers.
[23] Abstract of Accounts, 1784, 1786, MS 523/55-58 and MS 523/63-66, Newton Family Papers.
[24] Abstract of Accounts, 1789, 1795, MS 523/76-79 and MS 523/100-103, Newton Family Papers.
[25] Christine E. Micklem, *The Newton Papers: A* Handlist, MS 523 (London: University of London Archives, 1969), iv, v; Handler and Lange with Riordan, *Plantation Slavery in Barbados*, 64.
[26] Abstract of Accounts, 1795, MS 523/100-103, Newton Family Papers.
[27] Abstract of Accounts, 1795, MS 523/100-103, Newton Family Papers. Despite Yard's departure, Newton and Seawell continue to a great deal of business with William Yard for years afterwards outside of the context of an employer/employee relationship.

promoted to chief overseer of Newton, and inherited Yard's old salary of £200.[28] Furthermore, his son Jacob replaced him as Chief Overseer of Seawell, albeit with a reduced salary of £100, which was increased to £150 in 1799 after just over three years of service.[29] In the same year however, 1795, the owners John and Thomas Lane, after some deliberation with their attorney, the now aging John Gay Alleyne, decided to maintain this position of plantation manager while still having individual overseers on each plantation, and employed a man named Sampson Wood to fill that post.[30] Wood's tenure as plantation manager also resulted in much more thorough accounting and bookkeeping practices as well as a wealth of letters between himself and the absentee proprietors.[31]

As Sampson Wood became more and more involved in his capacity as plantation manager, the station of chief overseer appears to have become correspondingly somewhat reduced in authority. Richard Nurse ceased to be the chief overseer of Newton in 1798 and was replaced the following year by Thomas Greenidge, who was previously a driver, who only held the title of "Overseer" and earned less than £94, which was reduced to £60 the following year, and then raised to £70 the year after that.[32] While this salary still represented a huge increase over the £20 that Greenidge

[28] Abstract of Accounts, 1796, MS 523/104-106 and MS 523/134-137, Newton Family Papers.
[29] Abstract of Accounts, 1796, 1799 MS 523/104-106 and 134-137, Newton Family Papers.
[30] "Sir John Alleyne to John Lane," June 21, 1794, MS 523/293, Newton Family Papers. There is no evidence of a salary being drawn by Sampson Wood in any of the annual account abstracts.
[31] For the years of 1798 and 1799, beyond the abstracts, journals and ledgers, there are separate detailed records for Newton and Seawell of the boiling-house accounts, the distilling-house accounts and the land and stock accounts. See MS 523/116-133, Newton Family Papers; Micklem, *The Newton Papers*, vi-vii. For the communications between John and Thomas Lane and Sampson Wood, see MS 523/295-571, Newton Family Papers.
[32] Abstract of Accounts, 1798-1801, MS 523/124-127, 134-145, Newton Family Papers.

was previously earning as a driver, it is nonetheless much lower than previous overseers on any of the plantations.[33] This is also the only instance of a driver or other employee from within the plantation being elevated to the position of overseer. While this disparity obviously represents the experience and responsibilities associated with being the chief overseer of a plantation, it may also suggest a perceived difference in social status associated with the two positions. In 1800, Jacob Nurse also ceased to be the chief overseer of Seawell, with the accounts suggesting that he was also briefly replaced by Greenidge, however the following year lists no overseer for Seawell whatsoever.[34] Between 1802 and 1804 there are no annual abstracts to indicate the revenue spent upon "Servants Wages," and between 1805 and 1807, the employees' salaries are included in the abstracts but not their names.[35] However, in 1808, names are included, indicating that the new "Manager" of Newton (the terminology of which seems to have supplanted the term "Overseer") was John R. Farrell, earning £200, which was increased to £250 the following year.[36] In 1812, Farrell was replaced by Robert Reese as Manager, who inherited Farrell's same salary, and served in this capacity until at least 1815 when the annual abstracts end (See Table 14). [37]

[33] Abstract of Accounts, 1798, MS 523/124-127, Newton Family Papers.
[34] Abstract of Accounts, 1800-1801, MS 523/138-145, Newton Family Papers.
[35] Abstract of Accounts, 1805-1807, MS 523/146-158, Newton Family Papers.
[36] Abstract of Accounts, 1808-1809, MS 523/159-160, Newton Family Papers.
[37] Abstract of Accounts, 1812-1815, MS 523/163-166, Newton Family Papers.

Table 14. *Chief Overseer's name and salary in £ on Newton, Seawell and Mount Alleyne plantations, (1771-1815)*

	Newton		Seawell		Mount Alleyne	
Year	Name	Salary	Name	Salary	Name	Salary
1771	John Clarke	200	Edward Yard	200	John Waite	100
1773	John Clarke	200	Edward Yard	200	John Waite	100
1774	John Clarke	200	Edward Yard	200	John Waite	100
1775	John Clarke	200	Edward Yard	200	Richard Smitten	120
1776	Edward Yard	200	William Yard	150	Richard Smitten	120
1777	Edward Yard	200	William Yard	150	Richard Smitten	120
1778	Edward Yard	250	William Yard	150	Richard Smitten	120
1779	Edward Yard	250	William Yard	150	Richard Smitten	120
1782	William Yard	200	William Gall	120	Richard Smitten	120
1783	William Yard	200	William Gall	120		
1784	William Yard	200	William Fitzpatrick	120		
1785	William Yard	200	William Fitzpatrick	120		
1786	William Yard	200	Richard Nurse	120		
1788	William Yard	200	Richard Nurse	120		
1789	William Yard	200	Richard Nurse	120		
1790	William Yard	200	Richard Nurse	120		
1791	William Yard	200	Richard Nurse	150		
1792	William Yard	200	Richard Nurse	150		
1793	William Yard	200	Richard Nurse	150		
1794	William Yard	200	Richard Nurse	150		
1795	William Yard	200	Richard Nurse	150		
1796	Richard Nurse	200	Jacob Nurse	100		
1797	Richard Nurse	200	Jacob Nurse	100		
1798	Richard Nurse	*	Jacob Nurse	100		
1799	Thomas Greenidge	*94*	Jacob Nurse	150		
1800	Thomas Greenidge	*60*	Thomas Greenidge	*		
1801	Thomas Greenidge	*70*				
1805	John Farrell?	200				
1806	John Farrell?	200				
1807	John Farrell?	200				
1808	John Farrell	200				
1809	John Farrell	250				
1810	John Farrell	250				
1811	John Farrell	250				
1812	Robert Reese	250				
1813	Robert Reese	250				
1814	Robert Reese	250				
1815	Robert Reese	250				

Note: Data is unavailable for 1772, 1780-1781, 1787, 1802-1804.
Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

Several conclusion can be drawn from this narrative of the identity and salary of the overseers at Newton and Seawell. First of all, an effective overseer was at least perceived to be crucial to the proper functioning of a sugar plantation to which the high salaries, the turnover, and the almost immediate replacements can attest. Secondly, experience and expertise were clearly prized in a competent overseer and the salary demonstrably reflected this. An inexperienced overseer could not necessarily expect to inherit his predecessor's salary but could expect to receive a substantial raise if he had proven himself after a grace period that generally lasted for 2-4 years of service. Finally, both familial relationship between employees and personal relationships with the owners played an important role in an overseer's career trajectory as the father-son dynamic of the Yards and Nurses, and the repeated "promotion" of an overseer from Seawell to the larger Newton plantation demonstrate.

The only employee who was consistently paid for work done on all three plantations was the "Book Poster," who occupied the role of bookkeeper and accountant.[38] Bookkeepers are often described in both the primary and secondary literature as the principal assistants to overseers and the next in line to become overseers with Patrick Kein stating that overseers must “impress the good example in

[38] Little has been written on the role of bookkeeping and accounting or the people who performed these tasks in the eighteenth-century British West Indies or in the Atlantic more broadly. For a study of scientific accounting in America, see Caitlin C. Rosenthal, "From Memory to Mastery: Accounting for Control in America, 1750-1880," *Enterprise & Society* 14.4 (2013): 732-748. For a broader study of scientific bookkeeping and its relationship to capitalism, see B. S Yamey, “Scientific Bookkeeping and the Rise of Capitalism,” *Economic History Review* 1.2–3 (1949): 99–113; Justin Roberts, *Slavery and the Enlightenment in the British Atlantic World, 1750-1807 (*New York: Cambridge University Press, 2013), 38-41; Higman, *Plantation Jamaica 1750-1850*, 94-112. For a contemporary account of bookkeeping practices, see John Mair, *Book-Keeping Methodiz’d or a Methodical Treatise of Merchant-Acompts, according to the Italian form*, 7th ed (Edinburgh: Sands, Donaldson, Murray, and Cochran, 1763).

the minds of his book-keepers, to guide them to put the same industry in practice when they become overseers."[39] There is no evidence of a book poster on any of these three plantations becoming an overseer, however there were familial connections as with the chief overseers.[40] The book poster in 1771, when the account abstracts began, was a man named Patrick Paine, who drew a salary of £15 for his services to Newton plantations and £12 each for his services to Seawell and Mount Alleyne, plus an additional £1:7:6 from each plantation for creating the annual abstracts, for a combined total of just over £43.[41] Twelve years later in 1783, Paine was still receiving exactly the same salary from each plantation.[42] It is unknown whether or not Paine continued his work at Mount Alleyne after 1783, however he remained the faithful book poster on Newton and Seawell until 1796, when he still earned £16:10 from both.[43]

In addition to working as book poster for at least 25 years, a period which spanned at least three proprietors and over a dozen changes or reshuffles in overseer, Paine was also a very regular and liberal customer of the plantations' rum, which he, along with several others, was able to purchase at below-market value, representing a kind of eighteenth-century employee discount.[44] It is unknown whether all of the rum that Paine purchased was for his own personal consumption or if he sold it off the plantation for profit, but if it were, it would be a wonder that he was able to maintain his employment and produce such legible and precise accounts as the quantities are

[39] Kein, *An Essay upon Pen-Keeping and Plantership*, 83; Higman, *Plantation Jamaica 1750-1850*, 94-112.
[40] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[41] Abstract of Accounts, 1771, MS 523/34-34, Newton Family Papers.
[42] Abstract of Accounts, 1783, MS 523/52-54, Newton Family Papers.
[43] Abstract of Accounts, 1796, MS 523/108-109, Newton Family Papers.
[44] Abstract of Accounts, 1796, MS 523/108-109, Newton Family Papers.

rather remarkable, and increase gradually with age.[45] Paine was succeeded by George Marsh in 1797 and then by Felix Harper Nurse two years later, likely another relation Richard of Nurse. By 1815 when the accounts end, the book poster on Newton plantation was earning £22:10 annually. [46] A book poster who worked for multiple plantations as these ones did could have made significantly more money than a driver for example, aided by their prerequisite literacy and numerical skills. This could also create conflict between overseer and book poster however, with Kein claiming that overseers are" very haughty, and will jealously dismiss any bookkeeper who happens to know more."[47] Nonetheless, the authority and capital invested in this position, shows West Indian sugar plantations to be more than merely places of violence and coercion (which they undoubtedly were) but also environments that valued education, technical skill and represented some of the notions of rationalism, empiricism and improvement that typified the enlightenment and scientific revolution.[48]

In addition to the overseer and book poster, each plantation retained at least one driver every year, and an agent, key keeper and apprentice almost every single year. Of all the employees, the driver appears to have had the highest rate of turnover.

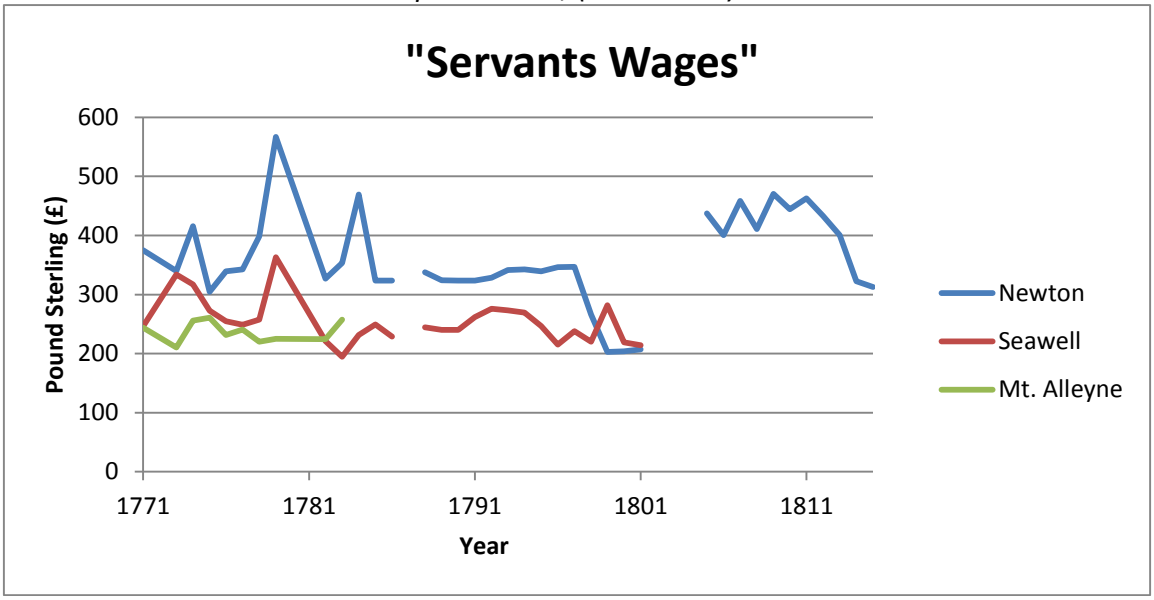
---

[45] Abstract of Accounts, 1771-1797, MS 523/34-115, Newton Family Papers.
[46] Abstract of Accounts, 1815, MS 523/166, Newton Family Papers.
[47] Kein, *An Essay upon Pen-Keeping and Plantership*, 11.
[48] For more on the presence of scientific rationalism and enlightenment ideas in within the slave system, see Roberts, *Slavery and the Enlightenment*, 26-160; Justin Roberts, "Sunup to sundown: plantation management strategies and slave work routines in Barbados, Jamaica and Virginia, 1776–1810," Ph.D. dissertation, (Baltimore: Johns Hopkins University, 2008); Eric Otremba, "Enlightened Institutions: Science, Plantations and Slavery," Ph.D. dissertation, (Minneapolis: University of Minnesota, 2012); Eric Otremba, “Inventing ingenios: experimental philosophy and the secret sugar-makers of the seventeenth-century Atlantic," *History and Technology* 28.2 (2012): 119-147; Joel Mokyr, The Enlightened Economy: An Economic History of Britain 1*700–1850*, (New Haven: Yale University Press, 2009); Caitlin Rosenthal, "From Slavery to Scientific Management: Counting and Accounting in America, 1750–1900,” PhD dissertation, (Cambridge: Harvard University, 2012).

Newton and Seawell frequently employed a doctor or apothecary and farrier, though not always, and Mount Alleyne, occasionally did, though less frequently. Sick nurses and Distillers (who would work in conjunction with enslaved distillers) occur less frequently in the accounts, the latter of which unsurprisingly appearing in years that also correspond to larger volumes of rum produced.[49] The debits spent on "Servants Wages" can help historians conceptualise the labour hierarchy on an eighteenth-century West-Indian sugar plantation. Given the large salary, the nature of the job and the extent of the responsibilities, the overseer was clearly at the top of this labour hierarchy, though below the plantation manager. Furthermore, if salary can be interpreted to represent some degree of authority or prominence in the labour hierarchy of a sugar plantation, than the Doctor, whose salary ranged from £40-60 (though they often were employed by multiple plantations), the driver whose salary average about £30, and the Book Poster can be regarded as employees with some degree of authority as well.[50] As a sugar plantation could not function properly without these employees, expenditures on employees' salaries were of the utmost importance to the plantation's success. A few employees such as a doctor, sick nurse, distiller or additionally drivers could be hired or not depending on changing circumstances, however most of the absolute value of salaries was locked into necessary work. Therefore, "Servants Wages" never dipped below a certain level and exhibited less fluctuation than many other expenditures as it was less discretionary (See Figure 10).[51]

[49] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[50] *Ibid.*
[51] For tables depicting Servants Wages, see Tables A1-A6 in the appendix.

Figure 10. *Value of "Servants Wages" on Newton, Seawell and Mount Alleyne plantations, (1771-1815)*



Note: Data is unavailable for 1772, 1780-1781. Values from 1787 contain estimates due to no annual abstract.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

PLANTATION MANAGEMENT HIERARCHY

When Thomas and John Lane inherited Newton and Seawell plantations in 1794 due to the death of their cousin Elizabeth Newton, the attorney of both plantations was the seventy year old John Gay Alleyne. Alleyne, the originator of the Alleyne baronetcy, was an extremely wealthy and well-respected gentleman on the island who had served as the Speaker of the Barbados House of Assembly from 1767-1770 and from 1772-1779.[52] Also an accomplished sugar planter and plantation manager in his own right,

[52] Elected to the Parliament of Barbados in 1757, Sir John Gay Alleyne, 1st baronet of Four Hill (1724-1801) served for 40 years as a member and 10 as the Speaker of the House of Assembly of Barbados. He was coincidentally replaced by Sampson Wood after both periods as Peaker. He also served for a time as the attorney of Newton and Seawell plantations from 1791-1797, as well as at Turner's Hall. After his death, he was replaced as attorney for Newton and Seawell by Joshua Gittens. Additionally, Sampson Wood was himself replaced as Speaker of the House of Assembly of Barbados by Joshua Gittens. It is uncertain whether or not these two Sampson Woods are related. *The Barbados Parliament*

Alleyne became the manager of the Mount Gilboa sugar plantation and distillery owned by his friend John Sober in 1747. Upon Alleyne's death in 1801, Sober wanted to honour him by naming the plantation after his friend, but as there was already a Mount Alleyne on Barbados, he settled on the name Mount Gay, from whence comes the famous Mount Gay Rum, the oldest rum brand in the world and one of the major employers in Barbados today.[53]

The transitional period in the mid-1790s that saw the introduction of Wood as plantation manager can provide some valuable insight into the labour hierarchy, management structure and devolution of authority on British West Indian sugar plantations. After Elizabeth's death, John Gay Alleyne wrote to the new owners about the plantations they had inherited, stating "that the Estates had this year fail'd again considerably in this Crop on each but this has arisen from the common Calamities, incident to these that have particularly affect'd that Part of the Island in which the estates of Mr. Newton are situated."[54] He added that the plantations have been struck by "Drought & the destruction of vermin called the Borers, yet their produce has been at least equal to that of their neighbors, and this shows that the Estates have not failed for want of the proper attention & Judicious Management of either."[55] By this time

---

<http://barbadosparliament.com/the_house_of_assembly.php >. *For* more on the Alleyne family, see James C. Brandow, *Genealogies of Barbados Families* (Barbados: Geneaological Publishing Company, 1983), 34-46; William Betham, The Baronetage of England: Or The History of the English Baronets, and Such Baronets of Scotland, as are of English Families; with Genealogical Tables, and Engravings of Their Coats of Arms, Volume 3 (London: Burrell and Bransby, 1803), 350.

[53] Brandow, *Genealogies of Barbados Families*, 34-46.

[54] "J. G. Alleyne to John and Thomas Lane," MS 524/ 293, Newton Family Papers.

[55] "J. G. Alleyne to John and Thomas Lane," MS 524/ 293, Newton Family Papers. "Sam Wood to Thomas Lane," March 31, 1798, MS 523/334, Newton Family Papers; Robert H. Schomburgk, *The History of Barbados Comprising a Geographical and Statistical Description of the Island; a Sketch of the Historical*

however, the elderly Alleyne was growing ill and was becoming considerably less involved in the operations of the plantations for which he was the attorney.

Plantation managers could use their positions to lobby the absentee planters in order to achieve specific personal goals. In March 1797, the Wood wrote to Thomas Lane of "our poor friend Sir John Alleyne" that "I fear He is not long for this world. He has entirely lost the Use of his Limbs from the Waist down."[56] Wood reported that Alleyne had suggested a relation of his, John Forster Alleyne, to replace him as attorney, but Wood expressed reservations, stating "first of all, that he has too many generous concerns of this nature on his hands on (being executor for & attorney to many People) to attend much to any particular one. He has a large Property of his own too, & this Property, together with most of those for which He is concerned, are at the other end of the Island distant from yours."[57] John Forster Alleyne (1762-1823) was born in Massachusetts to a loyalist family and was adopted by his aunt in Barbados, eventually inheriting her plantation.[58] Wood also somewhat self-servingly added of J.F. Alleyne that

---

Events and Settlements; and an Account of the Geology and Natural Productions (London: Longman, 1848), 645-646. The "Yellow Blast" or "Borer" as it was known at this time, was the larval state of the common moth species *Diatraea Saccharalis*. If left unchecked they could quickly devour entire cane fields. Schomburgk referred to these as "tribes of vermin more destructive than the locusts and the caterpillars of old." For vermin and pests, see Schomburgk, *The History of Barbados*, 640-653. For ecological considerations see Otis P. Starkey, *The Economic Geography of Barbados: A Study of the Relationships between Environmental Variations and Economic Development* (New York: Columbia University Press, 1939), 13-50; David Watts, *Mans Influence on the Vegetation of Barbados* 1627-1800 (Hull: University of Hull Publications, 1966).

[56] "Sam Wood to Thomas Lane," March 26, 1797, MS 523/296, Newton Family Papers.

[57] "Sam Wood to Thomas Lane," March 26, 1797, MS 523/296, Newton Family Papers.

[58] Brandow, *Genealogies of Barbados Families*, 34-46. For his correspondences, see JF Alleyne Letterbook (1799-1804), WIC/3/ALL. For more on the role of Loyalism in the Atlantic, see Jerry Bannister and Liam Riordan, editors., *The Loyal Atlantic: Remaking the British Atlantic in the Revolutionary Era (*Toronto: University of Toronto Press, 2011).

"He may also object that I should be the principal Man of Business.[59] Instead, he recommended a personal friend of his to replace John Gay Alleyne, “a Gentleman of as notable Character as Sir Alleyne, a man of as perfect Honour, Integrity, & Experience as any in the Island. His name is Joshua Gittens."[60] A month later, Wood wrote of Alleyne that "It was yesterday reported that he was dead in town." While not accurate, as Alleyne lived until 1801, it is indicative of his deteriorating health. Wood also advised emphatically against J.F. Alleyne becoming attorney but stressed that his objection was not personal, stating “I know that Sir John had recommended John Forster Alleyne. Indeed, he is a Man to whom I could have no objection except in what relates to your interest."[61] Sampson Wood was successful in having his friend Joshua Gittens made attorney instead of J.F. Alleyne, over the suggestion of one of the most important and powerful men on the island. This episode demonstrates the importance of interpersonal recommendation and social relationships and the limitations of familial ties, even for those as prominent as the Alleynes, in obtaining positions such as attorney in this fluid structure of plantation management British Atlantic world.

This multi-tiered regime of hierarchical plantation management had the potential to engender significant conflict and friction between the various different historical actors who operated within it. Wood's letters also indicate the somewhat strained relationship that he had with John Gay Alleyne as the latter got older and shoed how this could potentially affect his relationship with the Lanes. On June 22, 1797 he

[59] "Sam Wood to Thomas Lane," March 26, 1797, MS 523/296, Newton Family Papers.
[60] *Ibid.*
[61] *Ibid.*

wrote to Thomas Lane about "a Letter I have just received from Sir John Alleyne - A most extraordinary one it is. It is in answer to one I sent Him in the most affectional & respectfull terms upon hearing He was going to leave Us in this convoy - You will perceive his first observation rests upon my not paying proper respect to Him during his Illness - I solemnly assure You when I could get intelligences of his health from those that had seen Him I allways made the most kind enquiries."[62] Wood wanted to remain diplomatic, stating "I have not answered his Letter, nor do I mean to do it, to anger the last few moments He has to stay on this Island, perhaps on Earth."[63] This did not prevent him from taking a shot at Alleyne however, writing " The truth is He grows old & is peevish through sickness & infirmity & so jealous, having been allways used to be of authority that can bear no division of it with patience & is particularly so with respect to those Estates which He long held. I should have told Him so had He been in health."[64] Apparently, the enmity between the two endured, because in November, after Alleyne returned to England, Wood wrote "The next [subject] is Sir John & I have little to say on the Subject. You must ere this time have seen Him and known all his accusations against me if He seriously had any."[65]

Maintaining the trust and confidence of the absentee planters was of paramount importance to plantation managers. Wood also made an effort to highlight his unfailing dedication to the interests of the Lanes, even when furthering his own interests - a recurring theme throughout his letters to Thomas Lane. In September 1797, he wrote

[62] "Sam Wood to Thomas Lane," June 22, 1797, MS 523/306, Newton Family Papers.
[63] *Ibid.*
[64] *Ibid.*
[65] "Sam Wood to Thomas Lane," October 15, 1797 MS 523/322, Newton Family Papers.

that “For ten Weeks, I have not put a foot from Newton for a day, not for an hour I may say, except to cross over to Seawell. I am now constantly occupied in superintending our repairs & improvements.”[66] Particularly following the departure of Richard Nurse after which he declared that “I have now taken the entire management on myself," Wood emphasised his single-minded devotion to the plantations.[67] "The first to go to labour, & the last to recede from it," Wood even went so far as to claim that he works harder than the slaves, declaring “I defy any Negro Man to say He labours harder in his vocation, or more constantly than I do- indeed they [the slaves] have their days of rest, which I permit them alternately & the constant Sabbath.”[68] By contrast, he claimed to also have to work on Sundays, stating “on that day I am obliged to revise the Books & the works of the antecedent week- not a grain of Sugar is made or packed that does not pass under my inspection immediately.”[69] Wood's labours do not seem to have gone unnoticed however, and in February, 1798, Richard Lane wrote to Thomas Lane that he had “visited Newton Estate, in company with a Gentleman Planter by the name of Mitchells, who is generally acknowledged to be a good judge, it appears to him that Wood is going on well, and he thinks you a might luck to get such a man as Manager.”[70] He further reported that the planter looked into everything "and gave Wood a few Hints that Wood

[66] "Sam Wood to Thomas Lane," September 8, 1797 MS 523/321, Newton Family Papers.
[67] “Sam Wood to Thomas Lane,” March 31, 1798, MS 523/334, Newton Family Papers.
[68] “Sam Wood to Thomas Lane,” April 24, 1798, MS 523/335/1, Newton Family Papers.
[69] *Ibid.*
[70] "Richard Lane to Thomas Lane," February 28, 1798, MS 523/332, Newton Family Papers.

will profit by, upon my word he appears to have your Interest at heart, and the grounds and lands appear to be getting into good order."[71]

The personal lives of the plantation management staff could also affect the operation of plantations. Earlier that year Wood got married, "Having seen a Lady whose temper coincided with my own.[72] Thus, he appropriated some more of the property Estate for himself, writing that "I have taken a small house (still owning chamber for myself at each Estate) adjoining Seawell."[73] He justified this acquisition as a wholly unselfish act however, claiming that "I have only taken a house which Mrs. Wood's fortune enables me to do - to say that she has a house."[74] Wood stressed his and his wife's dedication to serving the Lanes as well, describing her rather unromantically as "a valuable acquisition to Us (I make my interest yours) & were you to see her care of the sick, her nurture of the little Negroes, her rearing of Calves, her churning of Butter & all her Oeconomy to save & maker a penny for the Estate"[75] He further used his wife to ingratiate himself with the Lanes, claiming "I am now writing to You from the Boiling House, & I lay my Life were I now to go to the House I should find her [his wife] inspecting the Nursery of Calves hereafter to make You many a lusty draftsman."[76] Sampson Wood clearly took his tenure as plantation manager very seriously and wasted no opportunity to remind the plantations' proprietors of that fact. He was willing to use his wife and disparage the respected John Gay Alleyne in order to

[71] *Ibid*.
[72] "Sam Wood to Thomas Lane," June 20, 1797, MS 523/306/2, Newton Family Papers.
[73] *Ibid.*
[74] *Ibid.*
[75] "Sam Wood to Thomas Lane," March 31, 1798, MS 523/334, Newton Family Papers.
[76] "Sam Wood to Thomas Lane," April 24, 1798, MS 523/335/1, Newton Family Papers.

attain his own ends. This shows the rather fluid and socially dependent nature of management, authority and hierarchy on British West Indian sugar plantations.

The multi-layered plantation management structure was not an immutable, inflexible framework that could not be adapted to changing circumstances or potentially exploited for personal gain. Wood also seems to have come into some conflict with Richard Nurse, the chief overseer of Newton since 1795 (and previously of Seawell since 1785), whose son Jacob, was also the chief overseer of Seawell. It is unclear the extent to which Wood viewed him as a rival but he seems to have made an effort to have him removed. In late 1797, Richard Nurse bought a sugar plantation adjacent to Newton in his own right, and Wood attributes a certain presumptuousness to this, writing "He supposed he was still to keep the management of Newton."[77] Wood advised against having a chief overseer who owned his own estate, claiming "Newton is so large a property and has so many Negroes that it requires one Man's undivided attention to do it perfect justice."[78] He also intimated that Nurse was getting above himself claiming that before he had come "the Managers of Newton & Seawell [Richard and Jacob Nurse] sat as real Lords of both Properties" and suggesting that Nurse who now also owned "a wind Mill Estate, would esteem himself something above a manager."[79] Wood seems to have taken the opportunity of this situation to consolidate more power for himself over the plantations, and Richard Nurse was replaced by Thomas Greenidge in 1798, who had unlike other overseers, previously been merely a driver and was not

[77] "Sam Wood to Thomas Lane," November 23, 1797 MS 523/324, Newton Family Papers.
[78] *Ibid.*
[79] *Ibid.*

given the title of "chief" overseer. Two years later, Jacob Nurse was also replaced by Greenidge and the following year no overseer was listed for Seawell whatsoever.[80] These conflicts and elaborate relations between absentee proprietors, attorneys, managers and overseers, suggests a more complex and less rigid plantation management regime than is articulated in much of the historical literature.[81]

This plantation labour hierarchy clearly engendered a desire for personal advancement among the management personnel. While some scholars have stressed how notions of scientific and economic rationalism, as well as enlightenment and improvement ideals created an externally competitive environment between sugar plantations that increased efficiency, few have turned this focus inward to the workings of individual sugar plantations. This plantation management regime fostered an internally competitive environment that may have increased plantation efficiency and profitability. The addition of the attorney (a feature unique to absentee plantations) added an additional echelon to this management dynamic that further increased this competition with the manager and overseer. Therefore, contrary to a great deal of the scholarly literature that stresses the inherent inefficiency and inefficacy of absentee plantations, this internally competitive mechanism may have actually been more acute on absentee plantations, helping to keep them economically competitive.[82]

---

[80] Abstract of Accounts, 1800-1801, MS 523/138-145, Newton Family Papers.
[81] Higman, *Plantation Jamaica 1750-1850*, 15-40; Dunn, *Sugar and Slave*s; Richard B. Sheridan, *Sugar and Slavery: The Economic History of the British West Indies*, (Baltimore: Johns Hopkins University Press, 1974).
[82] For literature on the inherent inefficiency of absentee plantations, see Lowell J. Ragatz, *The Fall of the Planter Class in the British Caribbean, 1763–1833* (New York: Octagon Books, 1977 [1928]); Eric Williams,

PROVISIONS AND OTHER EXPENSES

Another component of the plantation expenses was so-called "Negro Hire," which refers to the hiring of slaves' labour out to another owner for an agreed period of time. The hiring out of slaves came in two form, the first, but less significant being the hiring out of especially skilled slaves such as boilers, distillers, coopers, blacksmiths or drivers at key peak times.[83] The most common kind of negro hire however, came in the form of "jobbing gangs" - that is, teams of slaves not owned by the plantation for which they are labouring that were trained to perform specific plantation tasks in a lockstep gang labour regimen.[84] They were sometimes contracted from another plantation, although most commonly from a middling white Barbadian owner who was not himself a planter but had invested in a gang of slaves to contract out to sugar plantations for profit, particularly at periods of peak labour demand such as the harvest. This was a common way for modestly wealthy white Barbadians, as well as their counterparts in Jamaica and elsewhere in the British West Indies, to make sufficient money to return to Britain.[85] On these plantations, "Negro Hire" was often used synonymously with "negro holeing" as these jobbing gangs were invariably allocated the most difficult, dangerous, strenuous and backbreaking work on a sugar plantation which was normally the digging

---

Capitalism & Slavery. London: A. Deutsch, 1993 [1944], 108-168; Selwyn Carrington, The *Sugar Industry and the Abolition of the Slave Trade, 1775–1810* (Gainesville: University of Florida Press, 2002).

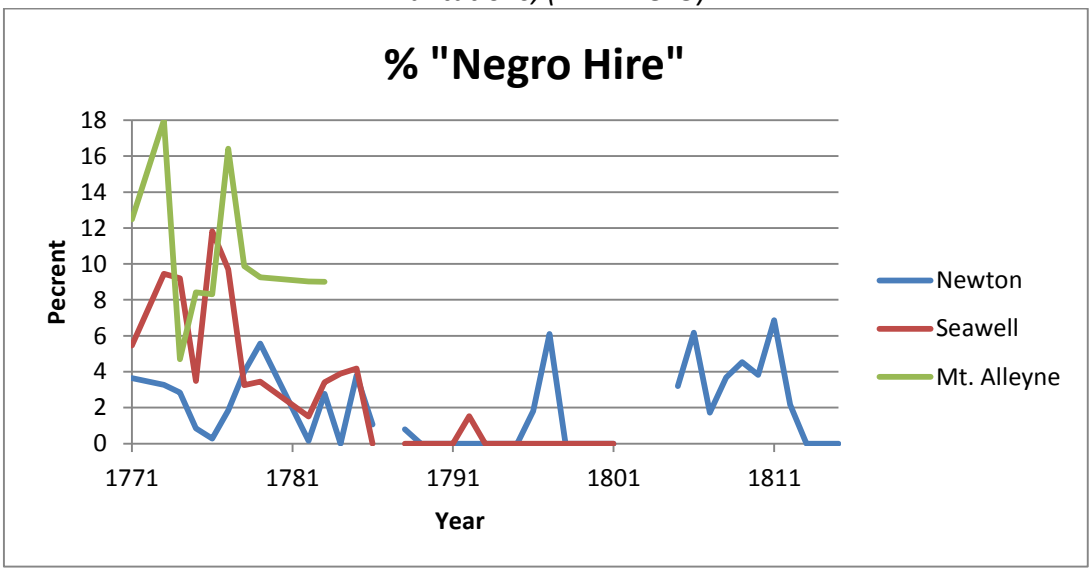
[83] Roberts, "Working Between the Lines," 574.

[84] For more on jobbing gangs see Roberts, *Slavery and the Enlightenment*, 105-149; Justin Roberts, "Uncertain Business: A Case Study of Barbadian Plantation Management, 1770-1793," *Slavery & Abolition* 32.2 (2011): 253-254; Philip D. Morgan, "Task and Gang Systems: The Organization of Labor on New World Plantations," in Stephen Innes, ed., *Work and Labor in Early America* (Chapel Hill: University of North Carolina Press, 1988): 189–220.

[85] Roberts, *Slavery and the Enlightenment*, 148-149.

of cane holes in which to plant sugarcane.[86] For this reason, the lot of slaves in a jobbing gang was arguably harsher than that of those owned directly by a plantation. Negro hire as a proportion of total expenses was highest on Mount Alleyne, and lowest on Newton, suggesting that the latter was most adequately staffed by its slave labour force (See Figure 11). On all three plantations, however, expenses on jobbing gangs were substantially lower than on Turner's Hall plantation in the Scotland District that consistently spent over 20 percent of its annual expenses on jobbing gangs.[87] A heavy reliance upon jobbing gangs would tend to keep the slave population on a plantation artificially low, thus decreasing its apparent capital value and increasing its apparent annual profit rate according to Ward's profitability model from the previous chapter.

Figure 11. *% of Expenses Spent on "Negro Hire" on Newton, Seawell and Mount Alleyne Plantations, (1771-1815)*



Note: Data is unavailable for 1772, 1780-1781. Values from 1787 contain estimates due to no annual abstract.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

[86] Roberts, *Slavery and the Enlightenment*, 105-149; Roberts, "Uncertain Business," 253-254.

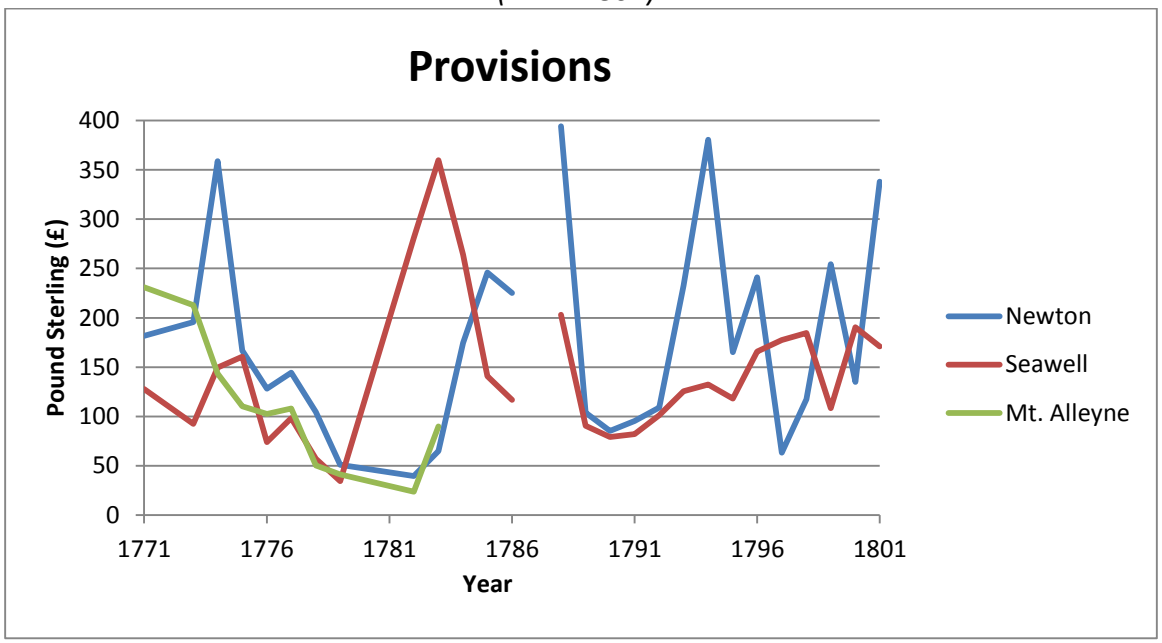
[87] Roberts, "Uncertain Business," 253-254. For tables depicting "Negro Hire" on all three plantations, see Tables A1-A6 in the appendix. For an examination of the expenses by category on Turner's Hall in both absolute and proportionate terms, see in Table A8 in the appendix.

Expenditures on food and other supplies were also a central component of the financial operation of an eighteen-century sugar plantation. In fact, in all of the annual account abstracts of Newton, Seawell and Mount Alleyne plantations, "Provisions" was the first heading listed, demonstrating its conceptual prominence. Plantation managers made calculated decisions about which provisions they would buy on the basis of a multitude of factors including price, demand and commercial networks and frequently exhibited preferences and made compromises. For example in March, 1797, Wood reported that "The Provisions from Ireland, Beef, Pork, Herrings arrived safe, a few weeks ago" and were fine but "it was an Irish piece of Business for they had neither sent me Invoice, Bill of Lading nor even letter" and there was nothing to indicate the price and the amount shipped other than the word of the captain.[88] The relationship between the agent, who conducted business on behalf of the plantation, and the owners and manager was quite important. In January, 1797, George Blackman, whose father had been the agent, wrote to Thomas Lane to report "the Death of my worthy Father" and hoped to continue in his father's place due to “the many year the Families have been connected in business.”[89] The entries itemised under the category of "Provisions" included such foodstuffs as beef, pork, rice, corn, fish (cod), herrings, flour, salt and butter, as well as some consumable non-foodstuffs such as soap, and particularly in later years, clothing.[90] The grains and fish were purchased to feed the slaves whereas the pork, beef, butter and flour was intended mostly for the white employees. In fact,

[88] "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers.
[89] "George Blackman to Thomas Lane," January 17, 1797 MS 523/294, Newton Family Papers.
[90] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

later annual abstracts make this distinction very explicit by dividing "Provisions" into "Slaves Expences" and "Managers and White Servants Expences."[91] Expenses on provisions on all three estates decreased substantially during the American Revolutionary War and subsequently afterwards, following a similar trend to the expenses more generally. This demonstrates the degree to which commerce with the American colonies, particularly for provisions such as rice, corn and fish, was so important. Expenses on provisions were considerably less affected by the French Revolutionary War, showing the prominent role of American provisions and the varying ways in which different wars could affect the economic balance sheet of British West Indian sugar plantations (See Figure 12).

Figure 12. *Value of "Provisions" on Newton, Seawell and Mount Alleyne plantations, (1771-1801)*



Note: Data is unavailable for 1772, 1780-1781. Values from 1787 contain estimates due to no annual abstract.

Sources: Abstract of Accounts, 1771-1801, MS 523/34-145, Newton Family Papers.

[91] Abstract of Accounts, 1805-1815, MS 523/156-166, Newton Family Papers. For tables depicting expenses on "Provisions" on all three plantations, see Tables A1-A6 in the appendix.

The provisions purchased by each plantation were also itemised by value, and in some cases by quantity. This makes it possible to estimate how much of a particular foodstuff was purchased in a given year as well as the unit price of that good. The major food provisions that each plantation purchased to feed their slaves were corn, rice, Guinea corn, fish, herring and shad, the latter three being an important source of protein in the slaves' diet. Although small amounts of beef and pork were occasionally given to the slaves on special occasions, this would be of marginal nutritional significance in a macro-study of the diet of these slaves and has been discounted from these calculations.[92] The purchase of these particular food products is significant as it represents a deliberate supplement to the provision crops grown on the plantation itself which included Guinea corn, Indian corn, yams, plantains, cassava, peas potatoes and beans. The drop in purchases of rice after 1775 is particularly interesting and can be attributed to the American Revolutionary War which disrupted the supply of rice from South Carolina to the British West Indies. It is also noteworthy that even after the end of the war, rice purchases did not immediately resume, representing how the decisions that plantation managers made concerning provisions were not limited to merely cutting costs, but also securing a reliable source and reducing risk. The amounts of each of these important foodstuffs varied considerably from year to year with many years seeing no purchases of these provisions whatsoever, while other years saw large bulk purchases (See Table 15).

[92] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

Table 15. *Quantity of Food Provision Purchased by Newton Plantation (1771-1815)*

Newton Year	Herring (barrels)	Fish (hogsheads)	Shad (barrels)	Corn (bushels)	Rice (pounds)	Guinea (bushels)
1771	4	6	0	60	618	0
1773	0	9	0	0	600	185.5
1774	0	8	0	860.5	600	0
1775	2	3	12	233	275	0
1776	15	1	2	20	38.5	0
1777	28	0	0	32	98	0
1778	18	0	0	0	224	0
1779	0	0	0	32	0	0
1782	0	0.5	0	0	0	0
1783	14	0	0	0	0	0
1784	8	0.4	0	450	0	0
1785	11	0	0	485.5	0	0
1786	7	1.3	0	439	0	0
1787	0	0	0	0	0	0
1788	9	2	0	1114	0	0
1789	8	2	2	42	27.5	0
1790	5	2	1	0	70	0
1791	5	3	0	0	4	0
1792	5	3	0	0	180	0
1793	6	3	0	300	200	0
1794	7	4	0	700	160	0
1795	18	2	0	0	80	0
1796	0	5	0	0	70	0
1797	0	2	0	1.5	0	0
1798	0	1	0	20	800	0
1799	0	4	0	60	1600	0
1800	0	1	0	40	0	0
1801	0	2	0	300	0	0
1802	0	0	0	0	0	0
1803	0	0	0	0	0	0
1804	0	0	0	0	0	0
1805	0	5.5	6	318.5	0	0
1806	0	9	0	7	0	0
1807	0	8	0	0	0	0
1808	0	7	0	0	0	8.25
1809	0	6	0	0	0	0
1810	0	9.75	0	0	0	0
1811	0	5.7	7	0	0	0
1812	0	5.5	0	473	40	0
1813	0	4.8	0	0	90	0
1814	9	6.8	0	0	40	0
1815	0	3.9	13	0	20	0
Total	**179**	**137.15**	**43**	**5988**	**5835**	**193.75**
Average	**4.3**	**3.3**	**1**	**143**	**139**	**4.6**

Note: Data is unavailable for 1772, 1780-1781. Values from 1787 contain estimates due to no annual abstract. Herrings and shad in barrels, fish in hogsheads, corn and Guinea corn in bushels and rice in pounds.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ronald Edward Zupko, *A Dictionary of Weights and Measures for the British Isles: The Middle Ages to the Twentieth Century* (Philadelphia: The American Philosophical Society, 1985).

It is important to acknowledge the degree to which the accuracy of this study is predicated upon the veracity of the numbers in the abstracts and the diligence and honesty of the plantation management. While the large numbers of zero entries in Table 15 could be interpreted as mere oversights on the part of a manager or bookkeeper, the annual account abstracts do purport to be the complete record of revenues and expenses and the evidence supports this.[93] Additionally, while there is always the possibility of deliberate inaccuracies in the accounts, for a variety of different reasons, the multi-layered management regime of absentee planters, attorneys, managers, overseers and bookkeepers did provide a certain internal system of checks and balances to mitigate this. Given a reasonably constant slave population, one might expect the annual purchases of a provision such as rice to remain reasonably constant from year to year, however the fluctuation potentially represents a careful attentiveness on the part of the plantation management to capitalise upon low prices. This reinforces the notion that planters and managers could be economically rational and adaptive in efficiently mobilising the final resources of their plantations, and suggests a familiarity with the interwoven merchant networks that operated across the early modern Atlantic world. In a letter to Thomas Lane regarding provision purchases for example, the principal merchant George Blackman mentioned both "Carolina" and "East India Rice,"

[93] Christine E. Micklem, *The Newton Papers: A* Handlist, MS 523, (London: University of London Archives, 1969).

and referred to their different prices at that time.[94] The ability to remain flexible and react to changing market forces for the provisions of the slave population represents another important dimension of dynamic Barbadian sugar plantation management.

A significant amount of the historical literature on the provisioning of British West Indian sugar plantations stresses the relative inefficiency of devoting large amounts of arable land to growing provisions because sugar was comparatively so much more valuable. This opportunity-cost argument posits that because it was so uneconomical to grow crops rather than sugar, the slave populations on sugar plantations were incapable of feeding themselves with their own domestic agricultural production and thus massive amounts of food must have been exported from overseas making sugar islands such as Jamaica and Barbados "foreign fed colonies."[95] Other scholars have rejected this notion by highlighting the importance of domestic agriculture on provision grounds to feed the slaves. Certainly, as early as 1750, sugar planters such as the prominent Antiguan planter Samuel Martin stressed the preferability of domestically grown provisions crops, writing that "if the labour of producing our own provisions was fairly computed, and compared to the expence of

---

[94] "George Blackman to Thomas Lane," December 18, 1796, MS 523/298 Newton Family Papers.

[95] For this opportunity-cost argument, see Dunn, *Sugar and Slave*s, xii, 67, 175; Arthur L. Stinchcombe, *Sugar Island Slavery in the Age of Enlightenment: The Political Economy of the Caribbean World* (Princeton, NJ: Princeton University Press, 1995), xiii, 52-53; David Beck Ryden, "Does Decline Make Sense? The West Indian Economy and the Abolition of the British Slave Trade," *Journal of Interdisciplinary History* 31.3 (2001): 347–374, 351; Sheridan, "The Crisis of Slave Subsistence in the British West Indies." The term "foreign fed colonies" originally comes from James Stephen, *The Slavery of the British West India Colonies Delineated, as it Exists Both in Law and Practice and Compared with the Slavery of Other Countries, Ancient and Modern*, Vol. 1 (New York: Kraus Reprint Co., 1969 [1824]), 94. For a contemporary refutation of Stephen, see Alexander Barclay, *A Practical View of the Present State of Slavery in the West Indies or, and Examination of Mr. Stephen's "Slavery of the British West India Colonies" Containing more Particularly an Account of the Actual Conditions of the Negroes in Jamaica* (London: Smith, Elder & Co., 1828).

purchasing that of North-America, I dare affirm, the latter will be found as expensive, though much less wholesome and nutritious."[96] "It is therefore matter of just concern," continued Martin, "to see the cultivation of provisions still so generally neglected here, and as I am informed, in all our colonies where there is not wanting in any plantation some kind of soil, adapted by nature, or improvable by art, to the production of some sort of provisions"[97] There were two separate regimes under which provision grounds could be operated, either granting slaves their own land and time to grow their food, or to force slaves to grow food on communal fields under the direction of a driver in regular gang time, though these were not mutually exclusive to one another.[98] Knowing the amount of food being purchased by Newton plantation, and given the number of slaves on the plantation, it is possible to estimate (albeit with some guess work) the average amount of food, energy and protein that this quantity of imported food could have provided a slave on a daily basis. [99] However, food and other provisions were by no means distributed equitably between each slave, nor were the nutritional demands of each slave equal. There were important and identifiable discrepancies on the basis of

[96] Martin, *An Essay Upon Plantership*, 12.
[97] *Ibid*., 13.
[98] Roberts, "Working between the Lines,"551–586, Ward, *British West Indian Slavery, 1750–1834*, 21; Hilary Beckles, "An Economic Life of Their Own: Slaves and Commodity Producers and Distributors in Barbados," in Berlin, Ira, and Philip D. Morgan, eds., *The Slaves' Economy: Independent Production by Slaves in the Americas* (London: Frank Cass, 1991): 31-47; Roberts, *Slavery and the Enlightenment*; James E Candow, "A Reassessment of the Provision of Food to Enslaved Persons, with Special Reference to Salted Cod in Barbados," *Journal of Caribbean History* 43.2 (December 2009): 265–281; Richard Sheridan, "Why the Condition of the Slaves Was 'less intolerable in Barbadoes than in the other sugar colonies,'" in Hilary Beckles, ed., *Inside Slavery: Process and Legacy in the Caribbean Experience* (Kingston, Jamaica: University of the West Indies Press, 1996): 31–50. For contemporary prescriptive literature advocating this, see Martin, *An Essay Upon Plantership*, 18.
[99] Ronald Edward Zupko, *A Dictionary of Weights and Measures for the British Isles: The Middle Ages to the Twentieth Century* (Philadelphia: The American Philosophical Society, 1985); U.S. Department of Agriculture, *Handbook of the Nutritional Value of Foods in Common Units* (New York: Dover Publications, 1975).

gender, age, kinship networks, and perhaps most importantly, occupation.[100] However, calculating the average amount of food, energy and protein from each of the purchased foodstuffs previously enumerated enables the calculation of the quantity of the average diet of a slave on Newton plantation that was derived from each of these aforementioned sources (See Table 16).

Table 16. *Average Food Energy and Protein Derived from Imported Food per Slave per day on Newton Plantation (1771-1815)*

	g/Slave/Day	Cal/Slave/Day	g Protein/Slave/Day
Herring	6.9	28	3.2
Fish	10.6	31	6.7
Shad	1.7	5	1
Corn	43	182	6.1
Rice	0.8	3	0.1
Guinea	1.4	5	0.2
Total Grain	45.2	190	6.4
Total Fish	19.2	64	10.9
Total	64.4	254	17.3

Note: Data is unavailable for 1772, 1780-1781, 1787.

Sources: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Peter E. Pope, *Fish Into Wine: The Newfoundland Plantation in the Seventeenth Century*, (London: University of North Carolina Press, 2004); Ronald Edward Zupko, *A Dictionary of Weights and Measures for the British Isles: The Middle Ages to the Twentieth Century* (Philadelphia: The American Philosophical Society, 1985); U.S. Department of Agriculture, *Handbook of the Nutritional Value of Foods in Common Units*, (New York: Dover Publications, 1975).

[100] Roberts, *Slavery and the Enlightenment*, 161-277; Beckles, "An Economic Life of Their Own," 31-47; Justin Roberts, "The 'Better sort' and the 'Poorer Sort': Wealth Inequalities, Family Formation and the Economy of Energy on British Caribbean Sugar Plantations, 1750-1800," *Slavery & Abolition* (forthcoming, 2014); Hilary Beckles, "Creolisation in Action: The Slave Labour Elite and Anti-Slavery in Barbados," *Caribbean Quarterly* 44.1–2 (1998): 108–128. For more on the role of slave women in the British West Indies, see Hilary Beckles, *Natural Rebels: a Social History of Enslaved Black women in Barbados* (New Brunswick, N.J.: Rutgers University Press, 1989); Barbara Bush, *Slave Women in Caribbean Society, 1650-1838* (London: James Currey, 1990); Lucille Mathurin Mair, "Women Field Workers in Jamaica during Slavery," in Brian L. Moore, ed., *Slavery, Freedom and Gender: The Dynamics of Caribbean Society* (Kingston, Jamaica: The University of the West Indies Press, 2001): 183–196.

As Table 16 clearly shows, the food imported by Newton plantation to feed the slaves was wholly insufficient to meet their nutritional needs. At merely 254 Calories (kcal) and 17.3 grams of protein per slave per day, this could have only represented a small fraction of the slaves' diet. The slaves of Newton plantation undoubtedly survived by deriving the vast majority of their diet from domestically-grown provision crops such as potatoes, yams, eddoes, cassava, Indian corn, Guinea corn, and plantains.[101] Kenneth Kiple has estimated the diet of the "average" Caribbean slave in his work *The Caribbean Slave: A Biological History*.[102] In it he describes two distinct Caribbean slave diets, one comprised of beef, corn and vegetables that was common in Cuba, derived from the research of Manuel Moreno Fraginals and himself, and the other comprised of fish, rice and vegetables that was more common in the British West Indies, based on the research of Richard Bean, and James Stephen (See Table 17).[103]

---

[101] For more on domestic food production in Barbados, see Beckles, "An Economic Life of Their Own," 31-47; Roberts, "Working Between the Lines," 558-560.

[102] Kenneth F. Kiple, *The Caribbean Slave: A Biological History* (New York: Cambridge University Press, 1984). For broader studies of the health and medical care of slaves in the British West Indies, see Richard B. Sheridan, *Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680–1834* (New York: Cambridge University Press, 1985). For contemporary literature on slaves' medical care, see Dr. [David] Collins, *Practical Rules for the Management and Medical Treatment of Negro Slaves* (London: J Barfield, 1803); Thomas Dancer, *The Medical assistant; or Jamaica Practice of Physic: Designed Chiefly for the use of Families and Plantations* (Kingston, Jamaica: Alexander Aikman, 1801); John Williamson, *Medical and Miscellaneous Observations, Relative to the West India Islands* (Edinburgh: Smellie, 1817); James Grainger, *On the Treatment and Management of the More Common West-India Diseases (1750–1802)*, J. Edward Hutson, ed. (Kingston, Jamaica: University of the West Indies Press, 2005).

[103] Kiple, *The Caribbean Slave: A Biological History,* 76-79; Kenneth F. Kiple, *Blacks in Colonial Cuba 1774-1899* (Gainesville, Fl.: University of Florida Press, 1976), appendix; Manuel Moreno Fraginals, "Africa in Cuba: A Quantitative Analysis of the African Population in the island of Cuba," in *Comparative Perspectives on Slavery in New World Plantation Societies*, eds. Vera Rubin and Arthur Tuden, (New York: New York Academy of Sciences, 1977), 198; James Stephen, *The Slavery of the British West India Colonies Delineated, as it Exists Both in Law and Practice and Compared with the Slavery of Other Countries, Ancient and Modern*, Vol. 2 (New York: Kraus Reprint Co., 1969 [1824]), 228; R.N. Bean, "The Imports of Fish to Barbados in1698," *Journal of the Barbados Museum and Historical Society* 35 (1975): 17-21.

Table 17. *The "Apparent" Caribbean Slave Intake of Chief Nutrients from Two Basic Diets for Slaves Aged Twenty-three to Fifty*.

Nutriments	Calories	Protein (g)
Beef/Corn Core		
.42 lb. beef	387	65
1 pint cornmeal	884	22
Core and vegetables	3017	105.8
Fish/Rice Core		
0.42 lb. fish	440	67
1 pint rice	1416	26
Core and vegetables	3215	110
Vegetable Supplements		
½ lb. yams	197	4
½ lb. eddoes	236	3
1 lb. bananas	386	5
1 lb. plantains	540	5
¼ lb. cassava meall (beef/corn diet only)	387	1.8

Source: Kenneth F. Kiple, *The Caribbean Slave: A Biological History,* (New York: Cambridge University Press, 1984), 78.

Clearly, the amount of food imported by Newton plantation would account for less than 10% of the average of 3000 Calories required that Kiple estimates to be the daily energy requirements of an adult Caribbean slave.[104] In fact, Kiple's estimates represent nearly five times as much grain and ten times as much fish as was imported by Newton plantation. Additionally, the fish/rice core diet that Kiple attributes to the British West Indies is not applicable to Newton whose main imports are fish and corn. It is also important to note that Kiple's estimates for the fish/rice core diet were based upon fish import estimates from 1698.[105] The tiny amount of food that is imported on

[104] Kiple, *The Caribbean Slave: A Biological History,* 78.

[105] Kiple, *The Caribbean Slave: A Biological History,* 78. For an examination of slaves' diet in the Danish West Indian island of St. Croix, see Niklas Thode Jensen, *For the Health of the Enslaved: Slaves, Medicine*

Newton compared to Kiple's estimates (which are based largely on prescriptive literature and non-statistical accounts) is striking. Assuming Kiple's estimate of a required 3000 Calories and 100g of protein daily for a Caribbean slave, Newton's slaves would have required over 2700 Calories and 80g of protein per slave daily to be produced domestically on the plantation. Given the low protein content of the vegetables listed by Kiple, while the difference in energy could be made up by vegetables grown on the provision grounds, the difference in protein likely could not.[106] Newton and Seawell plantation also grew significant amounts of more proteinaceous vegetables such as hyacinth beans and peas. [107] Samuel Martin stressed the heartiness of these domestically grown provisions compared to imports of grain from the continent, stating that "Scanty meals of North-American rice, corn, and flour, may sustain life; but it is our own produce only, which can impart athletic vigour." Martin also conceptualised the matter of slave nutrition in economic terms, rhetorically posing the question "while the planter feeds his negroes scantily, or with unwholesome food, how can he expect much labor and plentiful crops?"[108] However, Kristrina Shuler has found from archaeological skeletal studies that at least some of the slave population of Newton plantation were chronically protein-deficient.[109]

---

and Power in the Danish West Indies, 1803-1848 (Copenhagen: Museum Tusculanum Press, 2012), 151-194.

[106] *Ibid.*

[107] Roberts, "Working Between the Lines," 570; "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers.

[108] Martin, *An Essay upon Plantership*, 12.

[109] Kristrina Andrea Shuler, "Health, History, and Sugar: A Bioarchaeological Study of Enslaved Africans from Newton Plantation, Barbados, West Indies," Ph.D. Dissertation (Southern Illinois University, Carbondale, 2005), 46-77; Kristrina Andrea Shuler, "Life and Death on a Barbadian Sugar Plantation: Historic and Bioarchaeological Views of Infection and Mortality at Newton Plantation," *International*

Although Newton plantation alone is not necessarily representative of all sugar plantations in the British West Indies more broadly, it certainly challenges the notion that Barbados was a "foreign-fed colony" during the period between 1771 and 1815. In fact, if anything during the later years, Newton plantation was itself a net producer and retailer of provision crops which it sold within the local Barbadian economy. In the last ten years of Newton's accounts, the plantation sold nearly 150 000 lbs (or nearly 60 lbs per slave per year) of yams valued at almost £1000.[110] Additionally, over this period Newton also sold 275 bushels of corn, valued at £112:10, almost 25 000 lbs of potatoes, valued at nearly £80, and 58 cattle, valued at over £900.[111] The sale of just these four products netted an average of over £200 per year, which is over 20% of the revenue derived from rum over same period.[112] Put another way, this sold food would account for over 100 Calories per slave per day on Newton, nearly half as much as what the average amount of food energy brought from imported food between 1771 and 1815.[113]

Journal Osteoarchaeology 21 (2011): 66–81; Kristrina Andrea Shuler, "Nutritional Health of Enslaved Africans from Newton Plantation, Barbados: New Data," *Journal of the Barbados Museum and Historical Society* 51 (2005): 166-186, 180. For other bioarchaelogical studiesof Newton plantation, see Jerome S. Handler, et al., "Congenital Syphilis in the Past: Slaves at Newton Plantation, Barbados, West Indies," *American Journal of Physical Anthropology* 89 (1992): 145-158; Susannah Munson, "Genetic Admixture and Tooth Size in an Enslaved Population from Newton Plantation, Barbados," M.A. Thesis (Southern Illinois University Carbondale, 2012).

[110] Abstract of Accounts, 1805-1815, MS 523/156-166, Newton Family Papers.

[111] Abstract of Accounts, 1805-1815, MS 523/156-166, Newton Family Papers. For more on livestock, see Verene A. Shepherd, *Livestock, Sugar and Slavery: Contested Terrain in Colonial Jamaica* (Kingston, Jamaica: Ian Randle Publishers, 2009); Verene A. Shepherd, "Livestock and Sugar: Aspects of Jamaica's Agricultural Development from the Late Seventeenth to the Early Nineteenth Century," The Historical Journal 34.3 (September 1991): 627–643; Philip D. Morgan," Slaves and Livestock in Eighteenth-Century Jamaica: Vineyard Pen, 1750-1751," *William and Mary Quarterly* 3.52 (1995): 47-76. For a contemporary account of the role of livestock in the operation of a sugar plantation, see Kein, *An Essay upon Pen-Keeping and Plantership*.

[112] *Ibid.*

[113] Abstract of Accounts, 1805-1815, MS 523/156-166, Newton Family Papers*;* Peter E. Pope, *Fish Into Wine: The Newfoundland Plantation in the Seventeenth Century* (London: University of North Carolina

Clearly the supposed opportunity-cost argument did not stop the managers of Newton plantation from allocating plenty of arable land to provision grounds. In fact, the plantation management on Newton was arguably just taking advantage of a different opportunity cost equation that takes into account daily and seasonal labour and field resources to produce provision crops for profitable sale upon the island as well. Samuel Martin concluded his discussion of provisions by declaring that "He, therefore, who would reap plentifully must plant great abundance of provisions, as well as sugar-canes."[114] The management on Newton plantation seem to have followed this advice.

The revenue derived from sugar and rum is only one component of the effective operation of a West Indian sugar plantation. The judicious administration and allocation of financial resources in the form of expenses comprised an equally critical facet of plantation management. This chapter drew several significant conclusions about the finances of Newton, Seawell and Mount Alleyne plantations. Firstly, while expenses tended to vary considerably, they could essentially be grouped into two distinct categories, necessary and discretionary. The necessary expenses tended to fluctuate less and the fluctuation in total expenses was due primarily to discretionary spending. In particular, isolated spikes were largely due to incidental orders of utensils and plantation stores which were done in bulk and almost always during peacetime to save on shipping costs. Secondly, this chapter examined employee salaries and argued that "Servants Wages" were rather non-discretionary and thus varied relatively little.

Press, 2004); Zupko, *A Dictionary of Weights and Measures for the British Isles*; U.S. Department of Agriculture, *Handbook of the Nutritional Value of Foods in Common Units*.

[114] Martin, *An Essay upon Plantership*, 13.

Additionally, it argued that success and recognition as an overseer was highly predicated upon past experience, and favourable familial and personal relationships. Furthermore, this chapter asserted that the relationship between owner, attorney, plantation manager and overseer was remarkably flexible, and subject to change depending on the circumstances, but that it also engendered an internally competitive management environment on plantations that may have increased efficiency on absentee plantations in particular. Thirdly, contrary to some of the historical literature, the quantities of food imported by these plantations were capable of accounting for only a small fraction of the slaves' diet, which must have relied far more heavily upon food crops grown in the provision grounds of the plantations themselves, including potatoes, Guinea corn, Indian corn, yams, eddoes, plantains, peas, beans and cassava. Additionally, after 1805, Newton was in fact a significant producer and retailer of food into the local Barbadian economy. Finally, as with the thesis as a whole, this chapter asserted that West Indian plantations were flexible and dynamic capitalist enterprises and their planters, attorneys and plantation managers made a wide variety of rational and calculated decisions regarding the plantations' expenses on the basis of ever-evolving economic circumstances.

CHAPTER 5 - CONCLUSION

This microeconomic case study of sugar plantation profitability, accounting and management in Barbados examined the account abstracts, journals, ledgers, letterbooks, bills of lading and correspondences contained in the Newton Family Papers as they correspond to three Barbadian sugar plantations, Newton, Seawell and Mount Alleyne between 1763 and 1815 through the lens of Atlantic business history. The introductory first chapter provided some technical, geographic and historical context of the island of Barbados and the Newton family, the cultivation of sugarcane and its relationship with coerced labour, and of gang labour - the coordinated and systematised work regime that drove production on British West Indian sugar plantations at this time. The second chapter defined the characteristics, historiography, limitations and possibilities of the econometric methodology that informed this thesis, as well as reviewing the scholarly literature on the relationship between capitalism and slavery, Atlantic business history and the Resistance Paradigm, in both the American and West Indian academic contexts.

The third chapter analysed the sources of revenue for each estate from the annual account abstracts of these three plantations. It calculated and monetised the proportionate and absolute quantities of sugar, rum and other sources of revenue on an annual basis and their associated fluctuating unit sale prices. Additionally, using a model to estimate capital value based upon the work of J.R. Ward and R. Keith Aufhauser, it

estimated the annual profit rates of each plantation.[1] These profit margins were compared to other analogous sugar plantation studies and situated within the larger historiography of the Decline Thesis which this thesis explicitly and consciously seeks to oppose. The fourth and final chapter examined the expenses of each plantation on provisions, salaries, utensils, incidental charges and labour. It examined the roles of, and complex relationships between, plantation owners, attorneys, plantation managers, overseers and book posters within the context of plantation management. With regular reference to correspondences, it concluded that the plantation management regime fostered a strong desire and potential for personal advancement, and a sense of internal competition, that could have increased plantation profitability and efficiency, especially on absentee plantations. The fourth chapter also estimated the nutritional content of the provisions bought for slaves and the proportion of their diet that this might represent, drawing on the work of Kenneth Kiple.[2] In particular, it concluded that contrary to what much of the historical literature might suggest, purchased provisions accounted for a small fraction of the slaves' diet.

Unsurprisingly, sugar was consistently the major generator of revenue on all three of these Barbadian plantations. Over the years in question for which there are account abstracts, Seawell derived an average of 60% of its revenue from sugar, 23%

[1] J. R. Ward, “The Profitability of Sugar Planting in the British West Indies, 1650–1834,” *Economic History Review* 31.2 (May 1978): 197–213; R Keith Aufhauser, "Profitability of Slavery in the British Caribbean," *Journal of Interdisciplinary History* 5.1 (1974): 45-67.
[2] Kenneth F. Kiple, *The Caribbean Slave: A Biological History,* (New York: Cambridge University Press, 1984), 76-79.

from rum, and 17% from other sources.[3] This third number is the highest for any of the three plantations, despite Newton outstripping it in the retail of provisions, because of the several profitable, though somewhat intermittent years of long-staple cotton cultivation on Seawell. Originally begun at the suggestion of Seawell's chief overseer Richard Nurse, cotton cultivation accounted for significant revenues from 1788-1790, in 1793, and each year from 1796 onwards except for 1799 which was a record sugar crop on both Newton and Seawell.[4] The large spikes in sugar production in the late 1790s are contemporaneous with the transition to a new kind of sugarcane known as Bourbon cane that was spreading across the island and the British West Indies more broadly.[5] This repeated experimentation with other staple export crops demonstrates the dynamic nature of sugar plantation economies, the enterprising and innovative strategies employed by plantation managers, and the remarkable diversity of production that was possible on Caribbean sugar plantations.[6]

---

[3] Abstract of Accounts, 1771-1804, MS 523/34-155, Newton Family Papers.

[4] "Thomas Lane to Richard Nurse," September 12, 1795 MS 523/967, Newton Family Papers; "Thomas Lane to Wood," May 3, 1796 MS 523/967, Newton Family Papers; "Sam Wood to Thomas Lane," April 24, 1798 MS 523/335/1, Newton Family Papers; Abstract of Accounts, 1771-1804, MS 523/34-155, Newton Family Papers.

[5] For letters regarding the transition to Bourbon Cane on Newton and Seawell, see "Thomas Lane to Wood," May 3, 1796 MS 523/967, Newton Family Papers; "Sam Wood to Thomas Lane," March 26, 1797 MS 523/296, Newton Family Papers; "Sam Wood to Thomas Lane," October 15, 1797 MS 523/322, Newton Family Papers; "Sam Wood to Thomas Lane," November 23, 1797 MS 523/324, Newton Family Papers; "Sam Wood to Thomas Lane," September 8, 1797 MS 523/321, Newton Family Papers. For more on Bourbon cane, see Clement Caines, *Letters on the Cultivation of the Otaheite cane: the manufacture of sugar and rum; the saving of melasses; the care and preservation of stock; with the attention and anxiety which is due to Negroes: To these topics are added, a few other particulars analogous to the subject of the letters; and also a speech on the slave trade, the most important feature in West Indian cultivation*, (London: Messrs. Robinson, 1801); Benjamin Moseley, *A Treatise on Sugar* (London: G. G. & J. Robinson, 1799), 23-25.

[6] For more on this diversity of production, see Verene A. Shepherd, "Diversity in Caribbean Economy and Society from the Seventeenth to the Nineteenth Centuries," *Plantation Society in the Americas* 5.2 (1998): 175-187.

Comparatively, Newton garnered a somewhat higher proportion of its revenue from sugar - 67%, with rum accounting for 22% and other sources accounting for 11%.[7] This latter number is far from insubstantial, but rather than representing the cultivation of another non-sugar staple crop, it reflects the sale of other "sundry" goods such as provisions, livestock and slaves' labour.[8] This was particularly acute in the later years of the account abstracts, with the last ten years up to 1815 on Newton, averaging over £100 in revenue annually from both provisions and livestock.[9] This significant source of alternative revenue was equal to more than 20% of that derived from rum over the same period.[10] This demonstrates the important role played by provision crops on a land-scarce island and represents an interesting second opportunity cost decision that plantation managers could make, whereby they might use land not devoted exclusively to sugar cultivation to grow and sell highly demanded provision crops within the domestic Barbadian market.

Finally, Mount Alleyne derived an average of 63% of its revenues from sugar, 34% from rum and a mere 4% from other sources.[11] Its production profile therefore coincided more closely with the stereotypical conception of Caribbean sugar plantations

---

[7] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

[8] For more on food production on British West Indian sugar plantations, see Hilary Beckles, "An Economic Life of Their Own: Slaves and Commodity Producers and Distributors in Barbados," in Berlin, Ira, and Philip D. Morgan, eds., *The Slaves' Economy: Independent Production by Slaves in the Americas* (London: Frank Cass, 1991): 31-47. For more on livestock, see Verene A. Shepherd, "Livestock and Sugar: Aspects of Jamaica's Agricultural Development from the Late Seventeenth to the Early Nineteenth Century," The Historical Journal 34.3 (September 1991): 627–643; Philip D. Morgan," Slaves and Livestock in Eighteenth-Century Jamaica: Vineyard Pen, 1750-1751," *William and Mary Quarterly* 3.52 (1995): 47-76. For a contemporary account of the role of livestock in the operation of a sugar plantation, see Patrick Kein, *An Essay upon Pen-Keeping and Plantership* (Kingston Jamaica: His Majesty's Printing Office, 1796).

[9] Abstract of Accounts, 1805-1815, MS 523/156-166, Newton Family Papers.

[10] *Ibid.*

[11] Abstract of Accounts, 1771-1783, MS 523/34-54, Newton Family Papers.

that supposedly produced only sugar and sugar products. Its substantially higher revenues from rum are explained in part by its shorter run of account abstracts because all three plantations exhibit a marked, and fairly linear decline in the rum revenues of nearly 5% per decade.[12] While this decline may be partially attibuted to the distilleries at Newton and Seawell having fallen into a state of disrepair, it runs contrary to much of the literature that exhorts an increasing reliance upon rum production to reduce shipping costs.[13] The fact that all three plantations were able to maintain such profits without this, suggests a diversity of viable economic strategies at the disposal of Barbadian sugar plantation managers to sustain plantation profitability in challenging economic and political circumstances.

Additionally, the fluctuating prices on the three sugar plantations in question demonstrate several noteworthy phenomena. First of all, the sale price of rum showed a highly positive correlation with the outbreak of war, being about 50% higher during years of major European wars than during peacetime. This can attributed to higher shipping costs and an increased demand for rum brought about by a substantial increase in the size of the Royal Navy which provided its sailors with a rum ration.[14] Sugar prices, which averaged close to 40 shillings per hundredweight on each plantation, were affected significantly less by the outbreak of war but nonetheless

[12] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[13] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Justin Roberts, "Uncertain Business: A Case Study of Barbadian Plantation Management, 1770-1793," *Slavery & Abolition* 32.2 (2011): 247-268, 247. For letters concerning the Newton and Seawell distilleries, see "Sam Wood to Thomas Lane," October 15, 1797 MS 523/322, Newton Family Papers; Sam Wood to Thomas Lane," May 3, 1797 MS 523/303, Newton Family Papers.
[14] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; John J. McCusker, R*um and the American Revolution: The Rum Trade and the Balance of Payments of the Thirteen Continental Colonies* Volume 1 (New York: Garland, 1989), 128-228.

fluctuated considerably. They were consistently much higher than those in Jamaica that are articulated by David Beck Ryden's *West Indian Slavery and Abolition 1783-1807*.[15] Additionally, while there were individual downward spikes in the sale prices of sugar on Newton and Seawell in the individual years of 1802 and 1807, the subsequent recovery showed these to be isolated data points rather than part of a larger systematic trend. In fact in 1814, the sugar prices on Newton plantation had entirely rebounded to near-record highs. This suggests that the decrease in sugar prices wrought by overproduction that Ryden has identified in Jamaica seems to have been less acutely felt in Barbados.

Using the profit estimation model articulated in the third chapter, Newton, Seawell and Mount Alleyne plantations were consistently profitable capitalist enterprises, yielding average rates of return of 8.1%, 7.6% and 7.9% respectively over the years that were examined.[16] These numbers differ considerably from the estimates found by J.R. Ward whose ambitious study of 29 sugar plantations perhaps did not study all of the annual account abstracts individually and instead relied upon averages and estimations not fully explained in his notes. While Ward's method is the best model so far in the literature for approximating the monetary value of sugar plantations in the British Caribbean, the fact that its formula is ultimately isolated to a single variable, the slave population, means that changes in this variable can have extremely adverse

[15] David Beck Ryden, *West Indian Slavery and British Abolition, 1783–1807* (Cambridge: New York University Press, 2009), 295-296; Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.
[16] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers; Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 207, 210.

effects upon the apparent estimate of profit. An improved model, able to estimate the capital invested in land, buildings and tools, and express as them as separate variables, independent from the number of slaves, could potentially calculate a plantation's capital value, and therefore its annual rate of return on investment, more accurately. Additionally, amortisation costs to account for a graduation depreciation of capital assets over time could also be incorporated.

The highest annual returns recorded were 23% for Newton in 1798 and 1799, 25.5% for Seawell in 1792 and 16.5% for Mount Alleyne in 1782.[17] The average annual profit margins made all three of these plantations more profitable than many of their contemporary British West Indian counterparts and considerably more profitable than the 2-6% estimated by J.R. Ward as an average for the island as a whole.[18] Additionally, these rates of return compare rather favourably to other risky and highly profitable ventures such as the transatlantic slave trade as estimated by Roger Antsey and others. In fact, as Edwin Lascelles and others observed, Barbadian sugar planting tended to have less variation in annual profits, therefore being less risky than plantations in Jamaica and elsewhere, which helps explain why it remained an attractive investment.[19] Clearly, some Barbadian sugar planters and plantation managers were consistently able to successfully react and adapt to changing political and economic circumstances in novel and evolving ways and develop inventive, flexible strategies to maintain the high profits.

[17] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers
[18] Ward, "The Profitability of Sugar Planting in the British West Indies, 1650-1834," 207, 210.
[19] Edwin Lascelles, et al. *Instructions for the Management of a Plantation in Barbadoes. And for the Treatment of Negroes* (London: [s.n.], 1786), 1; Kein, *An Essay upon Pen-Keeping and Plantership,* 26.

A great deal of historical scholarship has presented a British West Indian sugar industry that was in relentless decline by the time of the American Revolution, which was especially significant on the island of Barbados.[20] This Decline Thesis, originally articulated by Eric Williams and Lowell Ragatz, and later reiterated by David Beck Ryden, Selwyn Carrington and Christer Petley, ties the origins of the abolition of the transatlantic slave trade to the collapse of the sugar plantation complex, allegedly brought about by unregulated speculation, increased foreign competition, overproduction of sugar, collapsing sugar prices, wanton environmental degradation and, according to some, the long-term inefficiency and unsustainability of slavery as a labour regime. Although this microeconomic analysis of three Barbadian sugar plantations cannot independently counter all of the arguments of the Decline Thesis, the remarkable recovery of sugar prices in Barbados as well as the consistently high profits enjoyed by Newton, Seawell and Mount Alleyne plantations can challenge the

[20] Lowell J. Ragatz, *The Fall of the Planter Class in the British Caribbean, 1763–1833* (New York: Octagon Books, 1977 [1928]); Eric Williams, *Capitalism & Slavery* (London: A. Deutsch, 1993 [1944]), 108-168; Selwyn Carrington, The *Sugar Industry and the Abolition of the Slave Trade, 1775–1810* (Gainesville: University of Florida Press, 2002); Selwyn Carrington, "The American Revolution and the British West Indies' Economy" in Solow, Barbara L. and Stanley L. Engerman, eds, *British Capitalism and Caribbean Slavery: The Legacy of Eric Williams* (New York: Cambridge University Press, 1987): 135-162; Ryden, *West Indian Slavery and British Abolition, 1783–1807*; David Beck Ryden, "Does Decline Make Sense? The West Indian Economy and the Abolition of the British Slave Trade," *Journal of Interdisciplinary History* 31.3 (2001): 347–374; David Beck Ryden, "Planters, Slaves and Decline," in Heather Cateau and S. H. H. Carrington, eds., *Capitalism and Slavery: Fifty Years Later* (New York: Peter Lang Publishing Inc., 2000): 155–170; David Beck Ryden, "Producing a Peculiar Commodity: Jamaican Sugar Production, Slave Life, and Planter Profits on the Eve of Abolition, 1750-1807," *The Journal of Economic History*, 61.2 (2001): 504-507; Selwyn Carrington, "Economic Determinism vs. Humanitarianism: Examining the Williams Hypothesis in *Freedom Road*, James Millette, ed., (Kingston, Jamaica: Arawak Publications, 2007); Selwyn Carrington, "Capitalism & Slavery and Caribbean Historiography: An Evaluation" in *The Journal of African American History* 88.3 (2003): 304-312; David Beck Ryden, "Sugar, spirits, and fodder: The London West India interest and the glut of 1807–15" *Atlantic Studies* 9.1 (2012): 41-64; Christer Petley, "Gluttony, Excess and the Fall of the Planter Class in the British Caribbean" *Atlantic Studies* 9.1 (2012): 85-106; Christer Petley, "Rethinking the Fall of the Planter Class, *Atlantic Studies* 9.1 (2012): 1-17.

applicability of the Decline Thesis to the specific case of Barbados in the late-eighteenth and early-nineteenth centuries.

The expenses of these three plantations also provide several important insights into the nature of British West Indian sugar plantation management at this time. Many of the categories of expenses, such as salaries and provisions, showed relatively small year-to-year fluctuations as they were immediately vital for the effective operation of the plantation. Others however, such as utensils and incidental charges, showed enormous variation from year to year because these expenditures were discretionary in nature and managers therefore sought to purchase them in bulk to save on shipping costs. This culminated in huge spikes in expenses in the years 1784, 1785, 1799, 1802 and 1803, all of which correspond to years immediately after significant Atlantic wars, whose terminations would have dramatically reduced insurance and freight costs.[21] Wars then, had the effect of increasing sugar prices modestly and rum prices significantly, and reducing plantation expenses at least temporarily. Not all wars affected the plantations in the same ways, however. While the American Revolutionary War caused a collapse in the expenses spent on provisions, highlighting the importance of the commercial network for food between the Caribbean and the Thirteen Colonies, subsequent Atlantic wars did not have the same effect.[22] While the American Revolution clearly had a net negative impact upon the profitable operation of British West Indian

[21] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers. For the annual abstracts of the specific years in question, see MS 523 5, 56, 59, 60, 134, 135, 146, 147, 150, 151.
[22] Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

sugar plantations, the huge associated increase in rum price helped mitigate some of these deleterious effects.

The examination of the regime of free white labour on each plantation showed that success and recognition as an overseer was highly dependent upon past experience, as well as favourable familial and personal relationships. Additionally, the account abstracts, and in particular the correspondences, show a relationship between owner, attorney, plantation manager and overseer that was remarkably flexible, and subject to change depending on the specific circumstances. This labour framework helped create an internally competitive environment between white managers upon plantations, with the additional presence of an attorney potentially making this even more acute on absentee plantations. This internal competition and desire for personal advancement helped foster efficiency and innovation on British West Indian sugar plantations. In contrast with much of the historical literature that stresses the inefficient and parochial nature of absentee plantership, the competitive dynamic between specialist managers and attorneys potentially had the opposite effect. In fact, as elaborate, technologically advanced and productive enterprises, owned by wealthy absentee investors, managed by knowledgeable local experts and driven by a specialised workforce, absentee sugar plantations foreshadowed many of the hallmarks of modern capitalism and the industrial revolution. In this respect, far from being hidebound, they were in many ways perversely and paradoxically modern.

The repeated experimentation with the cultivation of long-staple cotton, for example, as well as the transition to a new variety of sugarcane known as Bourbon cane, demonstrate this economically rational, innovative and flexible facet to Barbadian sugar plantation management. However, cotton was not the only non-sugar crop grown, with increasingly large quantities of provision crops also being grown to mitigate the cost of imported food. On Newton plantation, imported food constituted only a small fraction of the slaves' diet accounting for perhaps 10% of their energy needs at most. This is considerably less than the amount posited by Kenneth Kiple in his work *The Caribbean Slave: A Biological History*.[23] Therefore, the vast majority of the slaves' diet must have come from domestically produced food crops grown by the slaves on the provision grounds of the plantation itself such as potatoes, Guinea corn, Indian corn, yams, eddoes, plantains, peas, beans and cassava. This runs quite contrary to the remarkably enduring notion of Barbados as a "foreign-fed colony" that was reliant upon imports of grain and fish to feed its slave population.[24] This argument is predicated on a supposed opportunity cost calculus on the part of sugar planters that caused virtually all arable land to be devoted exclusively to sugarcane monoculture.[25] In fact, the last decade of the account abstracts indicate that Newton was increasingly becoming a net retailer of both food provisions such as yams, corn and potatoes and livestock (such as cattle and

[23] Kiple, *The Caribbean Slave: A Biological History,* 76-79.
[24] Richard Sheridan, "The Crisis of Slave Subsistence in the British West Indies During and After the American Revolution," *William and Mary Quarterly* 33.4 (1976): 615–641; Richard Dunn, *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713* (Chapel Hill: University of North Carolina Press, 1972), xii, 67, 175; Ryden, "Does Decline Make Sense?," 347–374, 351.
[25] Arthur L. Stinchcombe, *Sugar Island Slavery in the Age of Enlightenment: The Political Economy of the Caribbean World* (Princeton, NJ: Princeton University Press, 1995), xiii, 52-53.

horses into the domestic Barbadian economy.[26] Newton was also well located to serve in this capacity due to its proximity to Oistins, a major Barbadian port and commercial centre. This cultivation and retail of provision crops represents an alternative opportunity cost scenario available to Barbadian sugar plantation managers that shows many of them to be highly inventive, adaptive and rational economical actors.

Although this thesis strives to provide some answers to specific gaps in the historical literature, the research therein introduces as many historical questions as it answers, and exposes many possibilities for future scholarship. There is considerable potential for focused microeconomic plantation analyses to enrich the historiography with heretofore untapped plantation records containing rich sets of financial accounts, such as the Lowther Estate Papers pertaining to a Barbadian plantation, or the Tudway of Wells Papers regarding a plantation in little-studied Antigua.[27] Beyond financial accounts, microhistorical plantation studies can also make meaningful contributions to social and labour history, with documents such as the Gale-Morant Papers or the Prospect Estate Papers, both dealing with sizeable plantations in Jamaica, whose detailed work logs and slave censuses, particularly at York Plantation, are begging for a labour study or detailed demographic examination.[28] Additionally, more needs to be done in comparing and contrasting the possibilities for various models of sugar

[26] Abstract of Accounts, 1805-1815, MS 523/156-166, Newton Family Papers.
[27] Kenneth Morgan, *Tudway of Wells Antiguan Estate Papers, 1689-1907* (Microform Academic Publishers, 1999): 1-19; Lowther Estate Papers, CH/I/I.
[28] Richard B. Sheridan, "The Gale-Morant Papers 1731-1925," [microform], (Wakefield, England: Microform Academic Publisher, 1977): 1-9; Simon David Smith, "An Introduction to the Plantation Journals of the Prospect Sugar Estate," in *Records of the Jamaican Prospect Estate* [microform], (Wakefield, England: Microform Academic Publishers, 2003): 1–29.

plantation management that existed upon the different islands in the British West Indies, so that strictly Jamaican or Barbadian plantations are not always studied in isolation. Beyond this, more economic studies are required comparing slave plantations that produced different staple export crops such as tobacco, cotton, coffee, cocoa, indigo or rice with those that produced sugar to identify the key areas of intersectionality and exclusivity that characterised each different crop. Finally, and perhaps most importantly of all, more empirical plantation studies should be conducted by scholars with the pre-requisite language skills and historical background to directly compare the sugar plantations of different Atlantic empires, including the Portuguese, Spanish, Dutch, Danish and French. There is, for example, a wealth of French accounts from *sucreries* in Saint-Domingue, Guadeloupe and Martinique that beg to be subjected to rigorous econometric analysis that has heretofore been applied mostly to early America and the British West Indies. This type of interlingual, inter-imperial study is most promising, as its methodology is the veritable lifeblood of Atlantic world history.

Econometric history, or cliometrics, has had a profound impact upon the academic study of the history of slavery. The intellectual foundations of the so-called "cliometric revolution" were first laid with the famous 1958 article "The Economics of Slavery in the Antebellum South" by Alfred Conrad and John Meyer. However, the econometric turn in slave studies was epitomised by the groundbreaking yet controversial 1974 work *Time on the Cross: The Economics of American Negro Slavery* by Robert Fogel and Stanley Engerman. It postulated ten revolutionary points about slavery in the Antebellum South that dramatically and irrevocably altered scholarly

interpretations of American economic history.[29] While some of its more controversial social and cultural assertions regarding violence, sexual exploitation, and the integrity of slave families have been vociferously challenged, the majority of its economic conclusions regarding the profitability, adaptability, and material and labour conditions of slavery have not only held up well to scrutiny but have been vindicated by more recent scholarship.[30] *Time on the Cross* was instrumental in dispelling the persistent notion of a pre-Civil War Southern economy that was stagnant due to the inherent inefficiency of the supposedly economically moribund institution of slavery. This obsolescent view of slavery in the American context is paralleled very closely by the Decline Thesis in the West Indian slavery historiography which is essentially predicated on the same conception of plantation slavery's long-term inefficiency. In fact, much of the evidence in this microeconomic plantation study that challenges the Decline Thesis also serves to buttress several of Fogel and Engerman's conclusions regarding the efficiency, profitability, flexibility, diversity and specialisation of slave labour. Hopefully, such insights can help bridge the rather artificial but nonetheless sizeable disconnect that exists between the Caribbean and American historiographies of slavery.

Historians and economists have debated the precise nature of the relationship between slavery and capitalism for generations. This thesis contends that far from being inimical to modern capitalism and market economies, the plantation slave labour

[29] For the ten postulates, see Robert William Fogel and Stanley L. Engerman, *Time on the Cross: The Economics of American Negro Slavery* (Boston: Little, Brown, 1974), 4-6.
[30] Robert Whaples, "Where Is There Consensus Among American Economic Historians?" *Journal of Economic History*, 55 (1995): 139-147; Robert William Fogel, *Without Consent or Contract: The Rise and Fall of American Slavery*, (New York: Norton, 1989).

regime was highly compatible with it, and was in fact able to provide a degree of control, division and specialisation of labour rarely seen in the early modern Atlantic world. Furthermore, far from being rigid, parochial reactionaries, or market-averse paternalists, many sugar planters were inventive, dynamic and economically rational historical actors. Some historians have singularly stressed the primacy of the Resistance Paradigm in the history of slavery, whereby virtually all actions or inactions by slaves are interpreted through the lens of individual resistance against their own masters as well as political resistance against the slave system more broadly.[31] While this focus on resistance has doubtlessly broadened the scholarly literature, it can become politicised and ahistorical, with scholars often retroactively projecting modern notions of freedom onto historical slaves and casting them rather anachronistically as political actors. The Resistance Paradigm, the slavery vs. capitalism debate, the question of clioemetrics and the Decline Thesis have long divided the American and West Indian slavery historiographies. Using an econometric methodology that nonetheless does not eschew qualitative evidence, this thesis proposes that more similar microhistorical plantation studies be performed through the lens of business history. This permits scholars to move beyond the Resistance Paradigm and exceptionalist arguments that cast slavery as unique and aberrant among forms of early modern labour. Instead, slavery can be viewed as another variety of labour, distinct in degree rather than kind, that existed

[31] Eugene D. Genovese, *Roll Jordan Roll: The World the Slaves Made* (New York: Vintage Books, 1974); Herbert Gutman, *The Black Family in Slavery and Freedom, 1750-1925* (New York: Vintage Books, 1977); John Blassingame, The Slave Community: Plantation Life in the Antebellum South (New York: Oxford University Press, 1979); Nathan Huggins, "The Deforming Mirror of Truth: Slavery and the Master Narrative of American History," *Radical History Review* 69 (1991):25-46, 33; Michael Mullin, *Africa in America: Slave Acculturation and Resistance in the American South and the British Caribbean, 1736-1831* (Chicago: University of Illinois Press, 1992).

upon a spectrum of coerced labour, though undoubtedly at a violent, brutal and racialised extreme on that continuum. This approach will hopefully cause historians to pose new questions about the nature of slavery and the plantation complex in the early modern Atlantic world and also further help reconcile the disparate, nationalist American and West Indian historiographical traditions.

Newton, Seawell and Mount Alleye plantations were highly profitable business ventures operating within a capitalist economic framework, that produced a staple crop, sugar, largely for export to a foreign market by employing a labour regime predicated upon the exploitation of coerced workers in the form of African slaves. In order to succeed, these plantations required the coordinated concentration, mobilisation and exploitation of labour, finance, technology and the environment as well precise planning, management and control of time. From the second half of the eighteenth century onwards, these plantations, like others in Barbados and across the Caribbean more broadly, faced increasingly severe obstacles to their ongoing profitability including collapsing sugar prices, increasing labour and food costs, soil depletion and erosion, war and slave revolt, hurricanes and increased foreign competition. To face these significant challenges, Barbadian planters pursued innovative strategies and techniques such improved manuring and holing, experimenting with other staples crops and new varieties of sugarcane, and an increased domestic cultivation of provisions crops. This thesis contends that the plantation management apparatuses of three Barbadian plantations in particular, Newton, Seawell and Mount Alleyne were, able to muster an appropriate balance of resourceful ingenuity, judicious economic rationalism,

oppressive dehumanising violence and sheer luck to successfully adapt to changing economic, ecological and geopolitical circumstances and consistently generate substantial profits.

This microeconomic case study of three sugar plantations is an econometric institutional business history of a highly profitable, technological and productive enterprise in the British West Indies. However, it is also an inquiry into the very nature of the plantation complex within the context of the Atlantic world, which can invariably be characterised in various different manners. Plantations were undoubtedly veritable prisons of gruelling labour, harsh material conditions, dehumanising violence and brutal oppression. Additionally, they were proto-industrial "factories in the field" that pushed both their ecological environments and enslaved workforces to the limit in the pursuit of profits. However, as this microeconomic plantation case study has shown, they were also elaborate and technically sophisticated operations that at times exhibited a remarkable diversity of labour and production. Finally, this thesis has attempted to prove that sugar plantations were remarkably innovative centres of meticulous planning and improvement that epitomised and rationally employed many tenets of the Enlightenment and scientific revolution, vindicating Samuel Martin's assertion that “A liberal education is undoubtedly the principal ingredient, necessary to form a good planter.”[32] Surely, it is this inherent dichotomy of scientific rationalism and unspeakable inhumanity, at once an irreconcilable contradiction and a tragically symbiotic duality, that is the essence of the sugar plantation.

[32] Samuel Martin, *An Essay Upon Plantership*, 4th edn. (London: T. Smith, 1765), iii.

BIBLIOGRAPHY

Manuscript Primary Sources:

Senate House Library, University of London Archives, London, England

Newton Family Papers (1706-1894), MS 523.

Bank of Scoland Archives, Edinburgh, Scotland

Lowther Estate Papers, CH/1/10.

Derbyshire Record Office, Matlock, England

Fitzherbert Family Papers (1721-1856), D239.

National Library of Wales, Aberystwyth, Wales

Slebech Papers, (1789-1791).

Institute for Commonwealth Studies, London, England

JF Alleyne Letterbook (1799-1804), WIC/3/ALL.

Published Primary Sources:

Art of Making Sugar, The. London, 1752.

Baker, I. P. *An Essay on the Art of Making Muscovado Sugar Wherein a New Process is Proposed*. Kingston, Jamaica: Joseph Weatherby, 1775.

Barclay, Alexander. *A Practical View of the Present State of Slavery in the West Indies or, and Examination of Mr. Stephen's "Slavery of the British West India Colonies" Containing more Particularly an Account of the Actual Conditions of the Negroes in Jamaica*. London: Smith, Elder & Co., 1828.

Belgrove, William. *A Treatise Upon Husbandry or Planting*. Boston: D. Fowle, 1755.

Betham, William. The Baronetage of England: Or The History of the English Baronets, and Such Baronets of Scotland, as are of English Families; with Genealogical Tables, and Engravings of Their Coats of Arms, Volume 3. London: Burrell and Bransby, 1803.

Caines, Clement. *Letters on the Cultivation of the Otaheite cane: the manufacture of sugar and rum; the saving of melasses; the care and preservation of stock; with the attention and anxiety which is due to Negroes: To these topics are added, a few other particulars analogous to the subject of the letters; and also a speech on the slave trade, the most important feature in West Indian cultivation*. London: Messrs. Robinson, 1801.

Carman, Harry J. *American Husbandry*. New York: Columbia University Press, 1939 [1775].

Collins, Dr. [David]. *Practical Rules for the Management and Medical Treatment of Negro Slaves.* London: J Barfield, 1803.

Dancer, Thomas. *The Medical assistant; or Jamaica Practice of Physic: Designed Chiefly for the use of Families and Plantations*. Kingston, Jamaica: Alexander Aikman, 1801.

Dickson, William. *Letters on Slavery: To which are added, addresses to the whites, and to the free Negroes of Barbadoes; and accounts of some Negroes eminent for their virtues and abilities*. Westport: Negro Universities Press, 1970 [1789].

Dutrône de La Couture, Jacques-François. *Précis sur la canne: et sur les moyens d'en extraire le sel essentiel, suivi de plusieurs mémoires sur le sucre, sur le vin de canne, sur l'indigo, sur les habitations & sur l'état actuel de Saint-Domingue : ouvrage dédié à cette cololonie, & imprimé à ses frais / par Jes-F. Dutrône.* Paris: Chez Debure, 1791.

Edwards, Bryan. *The History, Civil and Commercial, of the British West Indies*. Dublin: Luke White, 1793.

Frere, George. *A Short History of Barbados from its First Discovery and Settlement to the Present Time*. London: J. Dodsley, 1768.

Gibbes, Philip. *Instructions for the Treatment of Negroes,* 2nd edition. London: Shefferson and Reynolds, 1788.

Grainger, James. *Sugar-Cane: A Poem, In Four Books* [1764], in Thomas W. Krise, ed., *Caribbeana: An Anthology of English Literature of the West Indies*. Chicago: The University of Chicago Press, 1999: 166–261.

On the Treatment and Management of the More Common West- India Diseases (*1750–1802*). J. Edward Hutson, ed., Kingston, Jamaica: University of the West Indies Press, 2005.

Kein, Patrick. *An Essay upon Pen-Keeping and Plantership*. Kingston, Jamaica: His Majesty's Printing Office, 1796.

Lascelles, Edwin, et al*. Instructions for the Management of a Plantation in Barbadoes. And for the Treatment of Negroes.* London: [s.n.], 1786.

Ligon, Richard. *A true and exact history of the island of Barbadoes*. London: Frank Cass & Co., 1970 [1657].

Long, Edward. *The History of Jamaica*, 3 vols. Montreal: McGill-Queen's University Press, 2003 [1774].

Mair, John. *Book-Keeping Methodiz'd or a Methodical Treatise of Merchant-Acompts, according to the Italian form*. 7th ed. Edinburgh: Sands, Donaldson, Murray, and Cochran, 1763.

Martin , Samuel. *An Essay Upon Plantership*, 4th edn. London: T. Smith, 1765.

A Short Treatise on the Slavery of Negroes in the British Colonies. Antigua: Robert Mearns, 1775.

Mitchell, John. *American Husbandry*. London: J Bew, 1775.

Moseley, Benjamin. *A Treatise on Sugar*. London: G. G. & J. Robinson, 1799.

Poyer, John. *A History of Barbados from the First Discovery of the Island in the Year 1605 Till the Accession of Lord Seaforth 1801.* London: Frank Cass and Co., 1971 [1808].

Smith, Adam. *An Inquiry Into the Nature and Causes of the Wealth of Nations*. New York: The Modern Library, 1937.

Stephen, James. *The Slavery of the British West India Colonies as it Exists Both in Law and in Practice and Compared with the Slavery of Other Countries, Ancient and Modern*, 2 Vols. New York: Kraus Reprint Co., 1969 [1824].

Thomson, James. *A Treatise on the Diseases of Negroes, As they Occur in the Island of Jamaica: With Observations on the Country Remedies*. Jamaica: Alex. Aikman, 1820.

Turnbull, Gordon. *Letters to a Young Planter; Or Observations on the Management of a Sugar Plantation*. London: Stuart and Stevenson, 1785.

Williamson, John. *Medical and Miscellaneous Observations, Relative to the West India Islands*. Edinburgh: Smellie, 1817.

Wright, Philip, ed. *Lady Nugent's Journal of her Residence in Jamaica from 1801-1805*. Kingston: University of the West Indies Press, 2002.

Secondary Sources:

Abbot, Elizabeth. *Sugar: A Bittersweet History*. Toronto: Penguin Canada, 2008.

Anstey, Roger. *The Atlantic Slave Trade and British Abolition*. Atlantic Highlands, NJ: Humanities Press, 1975.

Armitage, David. *The Ideological Origins of the British Empire.* Cambridge and New York: Cambridge University Press, 2000.

Armitage, David, and Michael J. Braddick, eds. *The British Atlantic World, 1500–1800*. New York: Palgrave Macmillan, 2002.

Armstrong, Douglas V., with Elizabeth J. Retiz. *The Old Village and the Great House: An Archaeological and Historical Examination of Drax Hall Plantation, St. Ann's Bay, Jamaica*. Urbana: University of Illinois Press, 1990.

Armstrong, Douglas V. and Kenneth Goodley Kelly, "Settlement Patterns and the Origins of African Jamaican Society: Seville Plantation, St. Ann's Bay, Jamaica," *Ethnohistory*, 47.2 (2000): 369-397.

Atack, Jeremy and Peter Passel. *A New Economic View of American History*, second edition. New York: W.W. Norton, 1994.

Aufhauser, R. Keith. "Slavery and Technological Change," *The Journal of Economic History*, 34.1 (1974): 36–50.

"Slavery and Scientific Management," *Journal of Economic History*. 33 (1973): 811–824.

"Profitability of Slavery in the British Caribbean," *Journal of Interdisciplinary History* 5.1 (1974): 45-67.

Aykroyd, W. R. *Sweet Malefactor: Sugar, Slavery, and Human Society*. London: Heinemann, 1967.

Bailyn, Bernard. *Atlantic History: Concept and Contours*. Cambridge, MA: Harvard University Press, 2005.

Bailyn, Bernard, and Philip D. Morgan, eds. *Strangers within the Realm: Cultural Margins of the First British Empire*. Chapel Hill: University of North Carolina Press, 1991.

Bakker, Henk. *Sugar Cane Cultivation and Management*. New York: Springer, 1999.

Bannister, Jerry and Liam Riordan, editors. *The Loyal Atlantic: Remaking the British Atlantic in the Revolutionary Era.* Toronto: University of Toronto Press, 2011.

Baptist, Edward. *The Half Has Never Been Told: Slavery and the Making of American Capitalism*. New York: Basic Books, 2014.

"Toxic Debt, Liar Loans, Collateralized and Securtized Human Beings, and the Panic of 1837" in Michael Zakim and Gary J. Kornblith, *Capitalism Takes Command*. Chicago, University of Chicago Press, 2011: 69-92.

Barrow, Tony. "The account books of the Disko Bay of Newcastle, 1784–1802: a case study of vessel management costs in the British shipping industry," *Mariner's Mirror*, 81.2, (1995): 171–81.

Bean, R.N. "The Imports of Fish to Barbados in 1698," *Journal of the Barbados Museum and Historical Society* 35 (1975): 17-21.

Beckles, Hilary. *White Servitude and Black Slavery in Barbados, 1627–1715*. Knoxville: University of Tennessee Press, 1989.

Natural rebels: a social history of enslaved Black women in Barbados. New Brunswick, N.J.: Rutgers University Press, 1989.

A History of Barbados: From Amerindian Settlement to Caribbean Single Market. New York: Cambridge University Press, 2006.

Black Rebellions in Barbados: The Struggle Against Slavery, 1627-1838. Bridgetown: Antilles Publications, 1984.

"Creolisation in Action: The Slave Labour Elite and Anti-Slavery in Barbados," *Caribbean Quarterly* 44.1–2 (1998): 108–128.

"An Economic Life of Their Own: Slaves and Commodity Producers and Distributors in Barbados," in Berlin, Ira, and Philip D. Morgan, eds., *The Slaves' Economy: Independent Production by Slaves in the Americas*. London: Frank Cass, 1991: 31-47.

Behrendt, Stephen. "The British slave trade, 1785–1807: volume, profitability and mortality," Ph.D. Dissertation, University of Wisconsin, Madison, 1993.
Bennett, J. Harry. *Bondsmen and Bishops: Slavery and Apprenticeship on the Codrington Plantations of Barbados, 1710–1838*. Berkeley: University of California Press, 1958.
Berlin, Ira. *Many Thousands Gone: The First Two Centuries of Slavery in North America*. Cambridge: Belknap Press of Harvard University Press, 1998.
Berlin, Ira, and Philip D. Morgan, eds., *Cultivation and Culture: Labor and the Shaping of Slave Life in the Americas*. Charlottesville: University of Virginia Press, 1993.
The Slaves' Economy: Independent Production by Slaves in the Americas. London: Frank Cass, 1991.
Boxer, C.R., *The Dutch in Brazil, 1624–1654*. Oxford: The Clarendon press, 1957.
Blackburn, Robin. The *Overthrow of Colonial Slavery*, *1776–1848*. London: Verso, 1988.
The Makings of New World Slavery: From the Baroque to the Modern 1492-1800. London: Verso, 1997.
Blassingame, John. The Slave Community: Plantation Life in the Antebellum South. New York: Oxford University Press, 1979.
Brandow, James C. *Genealogies of Barbados Families*. Barbados: Geneaological Publishing Company, 1983.
Brown, Christopher L. *Moral Capital: Foundations of British Abolitionism*. Chapel Hill: University of North Carolina Press, 2006.
Browne, Randy. "Surviving Slavery: Politics, Power, and Authority in the British Caribbean, 1807-1834," PhD Dissertation, University of North Carolina, Chapel Hill, 2012.
Brunsman, Denver Alexander. *The Evil Necessity: British Naval Impressment in the Eighteenth-Century Atlantic World*. Charlottesville: University of Virginia Press, 2013.
Burnard, Trevor. *Mastery, Tyranny and Desire: Thomas Thistlewood and His Slaves in the Anglo-Jamaican World*. Chapel Hill: University of North Carolina Press, 2004.
Bush, Barbara. *Slave Women in Caribbean Society, 1650-1838*. London: James Currey, 1990.
Candow, James E. "A Reassessment of the Provision of Food to Enslaved Persons, with Special Reference to Salted Cod in Barbados," *Journal of Caribbean History* 43.2 (December 2009): 265–281.
Carrington, Selwyn. The *Sugar Industry and the Abolition of the Slave Trade, 1775–1810.* Gainesville: University of Florida Press, 2002.
"The American Revolution and the British West Indies' Economy" in Solow, Barbara L. and Stanley L. Engerman, eds. *British Capitalism and Caribbean Slavery: The Legacy of Eric Williams*. New York: Cambridge University Press, 1987: 135-162.
"Economic Determinism vs. Humanitarianism: Examining the Williams Hypothesis in *Freedom Road*, Dr James Millette, ed. Kingston, Jamaica: Arawak Publications, 2007.
"Capitalism & Slavery and Caribbean Historiography: An Evaluation" in *The Journal of African American History*. 88.3 (2003): 304-312.
Cateau, Heather. "The New 'Negro' Business: Hiring in the British West Indies, 1750–1810," in Alvin O. Thompson, ed., *In the Shadow of the Plantation: Caribbean History & Legacy*. (Kingston, Jamaica: University of the West Indies Press, 2002): 100–120.
"'A Question of Labor': British West Indian Plantations, 1750–1810," *Plantation Society in the Americas* 6.1 (1999): 65–94.
"Conservatism and Change Implementation in the British West Indian Sugar Industry 1750–1810*," Journal of Caribbean History* 29.2 (1995): 1–36.
Coclanis, Peter A., ed. *The Atlantic Economy during the Seventeenth and Eighteenth Centuries:*

Organization, Operation, Practice, and Personnel. Columbia: University of South Carolina Press, 2005.
Conrad, Alfred and John Meyer. "The Economics of Slavery in the Antebellum South," *Journal of Political Economy* 66 (1958): 95-130.
Craton, Michael. *Searching for the Invisible Man: Slaves and Plantation Life in Jamaica*. Cambridge: Harvard University Press, 1978.
Sinews of Empire: A Short History of British Slavery. Garden City, NY: Anchor Press, 1974.
Testing the Chains: Resistance to Slavery in the British West Indies. Ithaca, NY: Cornell University Press, 1982.
Craton, Michael and James Walvin. *A Jamaican Plantation: The History of Worthy Park 1670-1970*. London: W. H. Allen, 1970.
Curtin, Philip. *The Rise and Fall of the Plantation Complex: Essays in Atlantic History*. 2nd ed. New York: Cambridge University Press, 1998.
Atlantic Slave Trade. University of Wisconsin Press, 1969.
Cutterham, Tom. "Factories in the Field," review of Justin Roberts, *Slavery and the Enlightenment in the British Atlantic, 1750-1807*, *The Oxonian Review* 25.4 (2014), URL: http://www.oxonianreview.org/wp/ factories-in-the-field/.
Darity, William. "Profitability of the British trade in slaves once again," Explorations *in Economic History*, 26.3 (1989): 380-384.
"The Numbers Game and the Profitability of the British Trade in Slaves," *Explorations in Economic History*, 26.3 (1989): 693–703.
David, Paul et al, editors. *Reckoning With Slavery: Critical Essays in the Quantitative History of American Negro Slavery*. New York: Oxford University Press, 1976.
David, Paul and Peter Temin. "Slavery: The Progressive Institution?," *Journal of Economic History* 34. 3 (1974): 739-83.
"Explaining the Relative Efficiency of Slave Agriculture in the Antebellum South: A Comment." *American Economic Review* 69 (1979): 213-18.
Davis, David Brion. *The Problem of Slavery in the Age of Revolution, 1770–1823*. New York: Oxford University Press, 1975.
Inhuman Bondage: The Rise and Fall of Slavery in the New World. New York: Oxford University Press, 2006.
Debien, Gabriel. *Les Esclaves aux Antilles Francaises (XVIIe–XVIIIe Siècles)*. Fort-de-France, Martinique: Société d'Histoire de la Martinique, 1974.
Deerr, Noël. *The History of Sugar*. 2 vols. London: Chapman and Hall, 1949-1950.
Drayton, Richard. *Nature's Government: Science, Imperial Britain, and the "Improvement" of the World*. New Haven, CT: Yale University Press, 2000.
Drescher, Seymour. *Econocide: British Slavery in the Era of Abolition*. Pittsburgh, PA: University of Pittsburgh Press, 1977.
Douglas, Robert L. "Myth or True: A White and Black View of Slavery," *Journal of Black Studies* 19.3 (1989): 343-360.
Dubois, Laurent. *Avengers of the New World: The Story of the Haitian Revolution*. Cambridge, MA: Harvard University Press, 2004.
Dunn, Richard. *Sugar and Slaves: The Rise of the Planter Class in the English West Indies, 1624–1713*. Chapel Hill: University of North Carolina Press, 1972.
"Sugar Production and Slave Women in Jamaica," in I. Berlin and P. D. Morgan, eds., *Cultivation and Culture: Labor and the Shaping of Slave Life in the Americas*. Richmond: University Press of Virginia, 1993: 49–72.

"A Tale of Two Plantations: Slave Life at Mesopotamia in Jamaica and Mount Airy in Virginia," *William and Mary Quarterly* 34.1 (1977): 32–65.

"'Dreadful Idlers' in the Cane Fields: The Slave Labor pattern on a Jamaican Sugar Estate," *Journal of Interdisciplinary History* 17.4 (1987): 795–822.

Dusinberre, William. *Them Dark Days: Slavery in the American Rice Swamps*. Athens: The University of Georgia Press, 1996.

Eckenrode, H.J. "Negroes in Richmond in 1864." *Virginia Magazine of History and Biography* 46.3 (1938): 193-200.

Edelson, S Max. *Plantation Enterprise in Colonial South Carolina*. Cambridge Mass.: Harvard University Press, 2006.

Egerton, Douglas R. "Markets without a Market Revolution: Southern Planters and Capitalism," *Journal of the Early Republic* 16 (1996): 210.

Elkins, Stanley. Slavery: A Problem in American Institutional and Intellectual Life. Chicago: University of Chicago Press, 1959.

Elkins, Stanley and Eric McKitrick. "Institutions and the Law of Slavery: Slavery in Capitalist and Non-Capitalist Cultures," *American Quarterly* 9 (1957): 159–179

Eltis, David. *The Rise of African Slavery in the Americas*. Cambridge, UK: Cambridge University Press, 2000.

Eltis, David and David Richardson. *Atlas of the Transatlantic Slave Trade*. New Haven: Yale University Press, 2010.

Eltis, David, Frank D. Lewis and David Richardson. "Slave Prices, the African Slave Trade, and Productivity in the Caribbean, 1674-1807," *The Economic History Review* 58.4 (2005): 673-700.

Eltis, David and Stanley L. Engerman, eds. *The Cambridge World History of Slavery Volume 3, AD 1420-AD 1804*. Cambridge: Cambridge University Press, 2011.

Eltis David, Stephen D. Behrendt, David Richardson and Herbert S. Klein, editors. *The Trans-Atlantic Slave Trade: A Database on CD-ROM*. Cambridge: Cambridge University Press, 1999.

Eltis David and Martin Halbert. *Voyages: The Transatlantic Slave Trade Database*. URL: slavevoyages.org.

African Origins. URL: african-origins.org.

Emmer, Pieter, and Femme Gaastra, eds. *The Organization of Interoceanic Trade in European Expansion, 1450–1800*. Aldershot, UK: Variorum, 1996.

Engerman, Stanley L. *Slavery, Emancipation and Freedom: Comparative Perspectives*. Baton Rouge: Louisiana State University Press, 2007.

Fenoaltea, Stefano. "The Slavery Debates: A Note from the Sidelines." *Explorations in Economic History* 18 (1981): 304-308.

Fleischman Richard K, David Oldroyd and Thomas N Tyson. "Plantation Accounting and Management Practices in the US and the British West Indies at the End of their Slavery Eras," *The Economic History Review* 64.3 (2011): 765-797.

Fogel, Robert William. *Without Consent or Contract: The Rise and Fall of American Slavery*. New York: Norton, 1989.

The Slavery Debates: A Retrospective, 1952–1990. Baton Rouge: Louisiana State University Press, 2003.

"New Economic History: Its Findings and Methods," *The Economic History Review* 19 (1966): 642-656.

The Union Pacific Railroad: A Case in Premature Enterprise, in *Johns Hopkins University Studies in Hisorical and Political Science* 78.2. Baltimore: Johns Hopkins University Press, 1960.

Railroads and American Economic Growth: Essays in Econometric History. Baltimore: Johns Hopkins University Press, 1964.

Fogel, Robert William, and Stanley L. Engerman. *Time on the Cross: The Economics of American Negro Slavery*. Boston: Little & Brown, 1974.

Time on the Cross: Evidence and Methods. Boston: Little, Brown and Company, 1974.

Fogel, Robert William, and Stanley L. Engerman, editors. *The Reinterpretation of American Economic History*. New York: Harper & Row Publisher Inc., 1971.

Fraginals, Manuel Moreno. *The sugarmill: the socioeconomic complex of sugar in Cuba, 1760-1860*. New York, Monthly Review Press, 1976.

"Africa in Cuba: A Quantitative Analysis of the African Population in the island of Cuba," in *Comparative Perspectives on Slavery in New World Plantation Societies*, eds. Vera Rubin and Arthur Tuden. New York: New York Academy of Sciences, 1977.

Fremont-Barnes, Gregory. *The Encyclopedia of the French Revolutionary and Napoleonic Wars: a Political, Social, and Military History.* Santa Barbara, Calif.: ABC-CLIO, 2006.

Galloway, J. H. *The Sugar Cane Industry: An Historical Geography from its Origins to 1914*. New York: Cambridge University Press, 1989.

Games, Alison. "Atlantic History: Definitions, Challenges, and Opportunities." *American Historical Review* 113.3 (2006): 741-757.

Genovese, Eugene D. *Roll Jordan Roll: The World the Slaves Made*. New York: Vintage Books, 1974.

The Political Economy of Slavery: Studies in the Economy and the Society of the Slave South. London: MacGibbon & Kee, 1965.

The World the Slaveholders Made: Two Essays in Interpretation. New York: Pantheon Books, 1969.

Genovese Eugene D. and Elizabeth Fox-Genovese. *Fruits of Merchant Capital: Slavery and Bourgeois Property in the Rise and Expansion of Capitalism.* New York: Oxford University Press, 1983.

Goldin, Claudia. "Cliometrics and the Nobel." The Journal of Economic Perspectives 9 (1995): 191-208.

Gosse, Dave St. Aubyn. *Abolition and Plantation Management in Jamaica 1807-1838.* Jamaica: University of West Indies Press, 2012.

Gragg, Larry Dale. *Englishmen Transplanted: The English Colonization of Barbados, 1627-1660*. New York: Oxford University Press, 2003.

Green, Toby. *The Rise of the Trans-Atlantic Slave Trade in Western Africa, 1300-1589*. Cambridge: Cambridge University Press, 201).

Greene, Jack P. *Pursuits of Happiness: The Social Development of Early Modern British Colonies and the Formation of American Culture*. Chapel Hill: University of North Carolina Press, 1988.

Greene, Jack P., and Philip D. Morgan, eds. *Atlantic History: A Critical Appraisal*. New York: Oxford University Press, 2008.

Grove, Richard. *Green Imperialism: Colonial Expansion, Tropical Island Edens, and the Origins of Environmentalism, 1600-1860*. New York: Cambridge University Press, 1995.

Guasco, Michael. *Slaves and Englishmen: Human Bondage in the Early Modern Atlantic World*. Philadelphia: University of Pennsylvania Press, 2014.

Gutman, Herbert. *Slavery and the Numbers Game: A Critique of Time on the Cross*. Urbana: University of Illinois Press, 1975.

The Black Family in Slavery and Freedom, 1750-1925. New York: Vintage Books, 1977.

Hall, Douglas. "Absentee Proprietorship in the British West Indies, to about 1850," *Jamaican Historical Review* 4 (1964): 15–35.

"Incalculability as a Feature of Sugar Production During the Eighteenth-Century," *Social and Economic Studies*, 10 (1961): 340–52.

Haggerty, Sherryllynne. *"Merely for Money?": Business Culture in the British Atlantic, 1750-1815*. Liverpool: University of Liverpool Press, 2012.

The British-Atlantic Trading Community, 1760-1810: Men, Women, and the Distribution of Goods. Leiden: Brill, 2006.

"Risk and Risk Management in the Liverpool Slave Trade," *Business History* 51.6 (2010): 817-834.

"Liverpool, the Slave Trade, and the British Atlantic Empire, c. 1750-75," in Haggerty, Sherryllynne, Anthony Webster and Nicholas J. White, eds. *The Empire in One City? Liverpool's Inconvenient Imperial Past*. Manchester: Manchester University Press, 2009.

Hancock, David. *Citizens of the World: London Merchants and the Integration of the British Atlantic Community, 1735–1785*. Cambridge, UK: Cambridge University Press, 1995.

"The Triumphs of Mercury: Connection and Control in the Emerging Atlantic Economy," in Bernard Bailyn and Patricia L. Denault, eds., *Soundings in Atlantic History: Latent Structures and Intellectual Currents, 1500-1830*. Cambridge: Harvard University Press, 2009: 112-140.

"The Trouble with Networks," *Business History Review,* 79 (2005), 467-491.

Handler, Jerome S. "The History of Arrowroot and the Origin of Peasantries in the British West Indies," *Journal of Caribbean Histor*y 2 (1971): 46–93.

"Plantation Slave Settlements in Barbados, 1650s to1834," in Alvin O. Thompson, ed., *In the Shadow of the Plantation: Caribbean History and Legacy*. Kingston, Jamaica: Ian Randle, 2002: 121–158.

A Guide to Source Materials for the Study of Barbados History, 1624-1834. Carbondale: Southern Illinois University Press, 1971.

Supplement to a Guide to Source Materials for the Study of Barbados History, 1624-1834. Providence: The John Carter Brown Library, 1991.

Handler, Jerome S., et al. "Congenital Syphilis in the Past: Slaves at Newton Plantation, Barbados, West lndies," *American Journal of Physical Anthropology* 89 (1992): 145-158.

Handler, Jerome S., and Frederick W. Lange with Robert V. Riordan. *Plantation Slavery in Barbados: An Historical and Archaeological Investigation*. Cambridge: Harvard University Press, 1978.

Harlow, Vincent T. *A History of Barbados 1625-1685*. New York: Negro University Press, 1969 [1926].

Haskell, Thomas. "The True and Tragical History of 'Time on the Cross.'" *The New York Review of Books* (1975): 33-39.

"Were Slaves More Efficient? Some Doubts about 'Time on the Cross'" *New York Review of Books* (1974): 38-42.

"Capitalism and the Origins of the Humanitarian Sensibility, Part 1," *American Historical Review* 90.2 (1985): 331–362.

Heuman, Gad, and James Walvin. *The Slavery Reader*. London: Routledge: 2003.

Higman, B. W. *Slave Populations of the British Caribbean, 1807–1834*. Baltimore: Johns Hopkins University Press, 1984.

Slave Population and Economy in Jamaica, 1807–1834. New York: Cambridge University Press, 1977.

Montpelier: A Plantation Community in Slavery and Freedom, 1739–1912. Kingston, Jamaica: The Press University of the West Indies, 1998.

Plantation Jamaica, 1750–1850: Capital and Control in a Colonial Economy. Kingston, Jamaica: University of the West Indies Press, 2005.

"The Sugar Revolution," *Economic History Review* 53.2 (2000): 213–236.

Hoyos, F.A. *Barbados: A History from the Amerindians to Independence*. London: Macmillan Education Limited, 1978.

Huggins, Nathan. "The Deforming Mirror of Truth: Slavery and the Master Narrative of American History," *Radical History Review* 69 (1991): 25-46.

Innis, Donald Q. *Intercropping and the Scientific Basis of Traditional Agriculture*. London: Intermediate Technology Publishing, 1997.

Israel, Jonathan. *Dutch Primacy in World Trade, 1585–1740.* New York: Oxford University Press, 1989.

James, C.L.R. *The Black Jacobins: Toussaint L'Overture and the San Domingo Revolution*, 2d rev. ed. New York: Vintage, 1989.

Jeannin, Pierre. *Marchands d'Europe: Pratiques et savoirs à l'époque moderne*. Paris: Editions Rue d'Ulm, 2002.

Jensen, Niklas Thode. *For the Health of the Enslaved: Slaves, Medicine and Power in the Danish West Indies, 1803-1848*. Copenhagen: Museum Tusculanum Press, 2012.

Johnson, Walter. "The Pedestal and the Veil: Rethinking the Capitalism/Slavery Question," *Journal of the Early Republic* 24 (2004): 300.

River of Dark Dreams: Slavery and Empire in the Cotton Kingdom. New York Belknap Press, 2013.

Jones, Brenda L. "Time on the Cross: A Rallying Cry for Racists." *Freedomways* 15 (1975): 26-33.

Kaye Anthony. "The Second Slavery: Modernity in the Nineteenth-Century South and the Atlantic World," *Journal of Southern History* 75 (2009): 627–50.

Kiple, Kenneth F. *The Caribbean Slave: A Biological History*. New York: Cambridge University Press, 1984.

Blacks in Colonial Cuba 1774-1899. Gainesville, Fl.: University of Florida Press, 1976.

Klingberg, Frank J, ed. *Codrington Chronicle: An Experiment in Anglican Altruism on a Barbados Plantation, 1710-1834*. Berkeley: University of California Press, 1949.

Klooster, Wim. *Illicit Riches: Dutch Trade in the Caribbean, 1648-1795*. Leiden: KITLV Press, 1998.

Kolchin, Peter. "More Time on the Cross? An Evaluation of Robert William Fogel's *Without Consent or Contract*." *Journal of Southern History* LVIII, no. 3 (1992): 491-502.

Lamikiz, Xabier. *Trade and Trust in the Eighteenth-Century Atlantic World: Spanish Merchants and Their Overseas Networks*. Woodbridge, UK: Boydell and Brewer, 2010.

Liss, Peggy. *Atlantic Empires: The Network of Trade and Revolution, 1713–1826*. Baltimore: Johns Hopkins University Press, 1983.

Lowenthal, David. "The Population of Barbados." *Social and Economic Studies* 6.4 (1957): 445-501.

Mair, Lucille Mathurin. "Women Field Workers in Jamaica during Slavery," in Brian L. Moore, ed., *Slavery, Freedom and Gender: The Dynamics of Caribbean Society*. Kingston, Jamaica: The University of the West Indies Press, 2001: 183–196.

Matson, Cathy. *Merchants and Empire: Trading in Colonial New York*. Baltimore: Johns Hopkins University Press, 1998.

McCusker, John J. “The Economy of the British West Indies, 1763–1790: Growth, Stagnation or Decline,” in John J. McCusker, ed., *Essays in the Economic History of the Atlantic World*. London: Routledge, 1997: 310–330.

“Weights and Measures in the Colonial Sugar Trade” in J. McCusker, ed., *Essays in the Economic History of the Atlantic World*. London: Routledge, 1997: 76-101.

Money and Exchange in Europe and America, 1600-1775. Chapel Hill: University of North Carolina Press, 1978.

Rum and the American Revolution: The Rum Trade and the Balance of Payments of the Thirteen Continental Colonies. 2 vols. New York: Garland, 1989: Ph.D. dissertation, University of Pittsburgh, 1970.

"The Rum Trade and the Balance of Payments of the Thirteen Colonies, 1650-1775." *The Journal of Economic History* 30.1 (1970): 244-247.

McCusker, John J. and Russell Menard. *The Economy of British America 1607-1789*. Chapel Hill: University of North Carolina Press, 1985.

"The Sugar Industry in the Seventeenth Century: A New Perspective on the Barbadian 'Sugar Revolution,'" in Stuart B. Schwartz, ed., *Tropical Babylons: Sugar and the Making of the Atlantic World, 1450-1680*. Chapel Hill: University of North Carolina Press, 2004: 289-330.

McCusker, John J., and Kenneth Morgan, eds., *The Early Modern Atlantic Economy*. Cambridge, UK: Cambridge University Press, 2000.

Meltzer, Milton. *Slavery: A World History*. New York: Da Capo Press, 1993.

Menard, Russell R. *Sweet Negotiations: Sugar, Slavery and Plantation Agriculture in Early Barbados*. Charlottesville: University of Virginia Press, 2006.

Micklem, Christine E. *The Newton Papers: A Handlist*. MS 523. London: University of London Archives, 1969.

Mintz, Sidney. *Sweetness and Power: The Place of Sugar in Modern History*. New York: Penguin Books, 1985.

“Slave Life on Caribbean Sugar Plantations: Some Unanswered Questions,” in Stephen Palmie, ed., Slave Cultures and the Cultures of Slavery. Knoxville: University of Tennessee Press, 1995: 12–22.

Mokyr, Joel. The Enlightened Economy: An Economic History of Britain, *1700–1850*. New Haven: Yale University Press, 2009.

Morgan, Kenneth. “Business Networks in the British Export Trade to North America, 1750–1800,” in John J. McCusker and Kenneth Morgan, eds., *The Early Modern Atlantic Economy*. Cambridge, UK: Cambridge University Press, 2000: 36–62.

"The Tudway of Wells Antiguan Estate Papers, 1689-1907," [microform], Wakefield: Microform Academic Publisher, 1999: 1-19.

Morgan, Jennifer. *Laboring Women: Reproduction and Gender in New World Slavery*. Philadelphia: University of Pennsylvania Press, 2004.

Morgan, Philip D. *Slave Counterpoint: Black Culture in the Eighteenth-Century Chesapeake and Lowcountry*. Chapel Hill: University of North Carolina Press, 1998.

“Slaves and Livestock in Eighteenth-Century Jamaica, Vineyard Pen, 1750–1751,” *William and Mary Quarterly* 52.1 (1995): 47–76.

“Task and Gang Systems: The Organization of Labor on New World Plantations,” in Stephen Innes, ed., *Work and Labor in Early America*. Chapel Hill: University of North Carolina Press, 1988: 189–220.

"Slavery in the British Caribbean" in David Eltis and Stanley L. Engerman, eds., *The Cambridge World History of Slavery Volume 3, AD 1420-AD 1804*. Cambridge: Cambridge University Press, 2011: 378-406.

Mulcahy, Matthew. *Hurricanes and Society in the British Greater Caribbean, 1624–1783*. Baltimore: The Johns Hopkins University Press, 2006.

Mullin, Michael. *Africa in America: Slave Acculturation and Resistance in the American South and the British Caribbean, 1736-1831*. Chicago: University of Illinois Press, 1992.

Munson, Susannah. "Genetic Admixture and Tooth Size in an Enslaved Population from Newton Plantation, Barbados," M.A. Thesis, Southern Illinois University Carbondale, 2012.

Newman, Simon. P. *A New World of Labour: The Development of Plantation Slavery in the British Atlantic*. Philadelphia: University of Pennsylvania Press, 2013.

Oakes, James. *The Ruling Race: A History of American Slaveholders*. New York: Knopf, 1982.

Slavery and Freedom: An Interpretation of the Old South. New York: Knopf, 1990.

Ormrod, David. *The Rise of Commercial Empires: England and the Netherlands in the Age of Mercantilism, 1650–1770*. Cambridge Studies in Modern Economic History. New York: Cambridge University Press, 2003.

Ormrod, Richard K. "The Evolution of Soil Management Practices in Early Jamaican Sugar Planting," *Journal of Historical Geography* 5.2 (1979): 157–170.

O'Shaughnessy, Andrew Jackson. *An Empire Divided: The American Revolution and the British Caribbean*. Philadelphia: University of Pennsylvania Press, 2000.

Otremba, Eric. "Inventing ingenios: experimental philosophy and the secret sugar-makers of the seventeenth-century Atlantic," *History and Technology* 28.2 (2012): 119-147.

"Enlightened Institutions: Science, Plantations and Slavery." Ph.D. dissertation, Minneapolis: University of Minnesota, 2012.

Oxford Dictionaries. URL: http://www.oxforddictionaries.com/.

Pack, A.J. *Nelson's Blood: The Story of Naval Rum*. Annapolis: Naval Institute Press, 1996.

Paquette, Robert L. "Social History Update: Slave Resistance and Social History." *Journal of Social History* 24.3 (1991): 681-685.

Parish, Peter J. *Slavery: History and Historians*. New York: Harper & Row Publishers, 1989.

Parker, Matthew. *The Sugar Barons: Family, Corruption, Empire, and War in West Indies*. New York: Walker and Company, 2011.

Parry, J.H. and Sir Phillip Manderson Sherlock. *A Short History of the West Indies*. New York: Macmillan, 1963.

Passel, Peter. "An Economic Analysis of that Peculiarly Economic Institution." *New York Times Book Review* (April 28, 1974): 4.

Petley, Christer. "Gluttony, excess and the Fall of the Planter Class in the British Caribbean" in *Atlantic Studies* 9.1 (2012): 85-106.

"Rethinking the Fall of the Planter Class, in *Atlantic Studies* 9.1 (2012): 1-17.

Philips, Ulrich B. *American Negro Slavery; a Survey of the Supply, Employment, and Control of Negro Labor, as Determined by the Plantation Regime*. Gloucester, Mass.: Peter Smith, 1918.

"The Decadence of the Plantation System." Annals of the American Academy of Political and Social Sciences 35.1 (1910): 37–41.

Pope, Peter. *Fish Into Wine: The Newfoundland Plantation in the Seventeenth Century*. London: University of North Carolina Press, 2004.

Ragatz, Lowell J. The Fall of the Planter Class in the British Caribbean, *1763–1833*. New York: Octagon Books, 1977 [1928].

Rediker, Marcus. *The Slave Ship: A Human History*. New York: Viking Press, 2007.

Richardson, David. "The Costs of Survival: the Transport of Slaves in the Middle Passage and the Profitability of the Eighteenth-Century British Slave Trade," *Explorations in Economic History*, 24.2 (1987): 178–96.

"Accounting for Profits in the British Trade in Slaves: Reply to William Darity," *Explorations in Economic History*, 26.4, (1989): 492–9.

Roberts, Justin. *Slavery and the Enlightenment in the British Atlantic World, 1750-1807.*New York: Cambridge University Press, 2013.

"Sunup to sundown: plantation management strategies and slave work routines in Barbados, Jamaica and Virginia, 1776–1810." Ph.D. dissertation, Baltimore: Johns Hopkins University, 2008.

"Working between the Lines: Labor and Agriculture on Two Barbadian Sugar Plantations, 1796–1797." *William and Mary Quarterly* 63.3 (July 2006): 551–586.

"Uncertain Business: A Case Study of Barbadian Plantation Management, 1770-1793," *Slavery & Abolition*, 32.2 (2011): 247-268.

Slavery Counted, Slavery Defined and Slavery Online, (review no. 964) URL: http://www.history.ac.uk/reviews/review/964.

"The 'Better sort' and the 'Poorer Sort': Wealth Inequalities, Family Formation and the Economy of Energy on British Caribbean Sugar Plantations, 1750-1800." *Slavery & Abolition* (forthcoming).

Rockman, Seth. "The Future of Civil War Era Studies: Slavery and Capitalism," *Journal of the Civil War Era*, 2.1 (2012) URL: http://journalofthecivilwarera.com/forum-the-future-of-civil-war-era-studies/the-future-of-civil-war-era-studies-slavery-and-capitalism/.

Rothman, Josh. *Flush Times and Fever Dreams: A Story of the Capitalism and Slavery in the Age of Jackson*. Athens: University of Georgia Press, 2012.

Rogers, Nicholas. *The Press Gang: Naval Impressment and its Opponents in Georgian Britain*. London: Continuum, 2007.

Rosenthal Caitlin C. "From Memory to Mastery: Accounting for Control in America, 1750-1880," *Enterprise & Society* 14.4 (2013): 732-748.

"From Slavery to Scientific Management: Counting and Accounting in America, 1750–1900," PhD dissertation. Cambridge: Harvard University, 2012.

Ryden, David Beck. *West Indian Slavery and British Abolition, 1783–1807*. Cambridge: New York University Press, 2009.

"Does Decline Make Sense? The West Indian Economy and the Abolition of the British Slave Trade," *Journal of Interdisciplinary History* 31.3 (2001): 347–374.

"Planters, Slaves and Decline," in Heather Cateau and S. H. H. Carrington, eds., *Capitalism and Slavery: Fifty Years Later*. New York: Peter Lang Publishing Inc., 2000: 155–170.

"Producing a Peculiar Commodity: Jamaican Sugar Production, Slave Life, and Planter Profits on the Eve of Abolition, 1750-1807," *The Journal of Economic History*, 61.2 (2001): 504-507.

"Sugar, Spirits, and Fodder: The London West India Interest and the Glut of 1807–15" in *Atlantic Studies* 9.1 (2012): 41-64.

Sauer, Jonathan D. *Historical Geography of Crop Plants: A Select Roster*. Boca Raton: CRC Press, 1994.

Scarborough, William Kaufman. *The Overseer: Plantation Management in the Old South*. Baton Rouge: Louisiana State University Press, 1966.

Schwartz, Stuart. *Sugar Plantations in the Formation of Brazilian Society, Bahia, 1550–1835*. Cambridge: Cambridge University Press, 1985.

Tropical Babylons: Sugar and the Making of the Atlantic World, 1450-1680. Chapel Hill: University of North Carolina Press, 2004.

Shepherd, Verene A. Livestock, Sugar and Slavery: Contested Terrain in Colonial Jamaica. Kingston, Jamaica: Ian Randle Publishers, 2009.

"Livestock and Sugar: Aspects of Jamaica's Agricultural Development from the Late Seventeenth to the Early Nineteenth Century," The Historical Journal 34.3 (1991): 627–643.

"Diversity in Caribbean Economy and Society from the Seventeenth to the Nineteenth Centuries," Plantation Society in the Americas 5.2–3 (1998): 175–187.

Sheridan, Richard B. *Sugar and Slavery: The Economic History of the British West Indies*. Baltimore: Johns Hopkins University Press, 1974.

Doctors and Slaves: A Medical and Demographic History of Slavery in the British West Indies, 1680–1834. New York: Cambridge University Press, 1985.

"Strategies of Slave Subsistence: The Jamaican Case Reconsidered," in Mary Turner, ed., *From Chattel Slaves to Wage Slaves; The Dynamics of Labour Bargaining in the Americas*. Bloomington: Indiana University Press, 1995: 48–67.

"Why the Condition of the Slaves Was 'less intolerable in Barbadoes than in the other sugar colonies,'" in Hilary Beckles, ed., *Inside Slavery: Process and Legacy in the Caribbean Experience*. Kingston, Jamaica: University of the West Indies Press, 1996: 31–50.

"Changing Sugar Technology and the Labour Nexus in the British Caribbean, 1750–1900, with Special Reference to Barbados and Jamaica," *New West Indian Guide* 63.1–2 (1989): 60–92.

"The Crisis of Slave Subsistence in the British West Indies During and After the American Revolution," William and Mary Quarterly 33.4 (1976): 615–641.

"Samuel Martin, Innovating Planter of Antigua, 1750–1776," *Agricultural History* 34.3 (1960): 126–139.

"The Gale-Morant Papers 1731-1925" [microform]. Wakefield, England: Microform Academic Publisher, 1977: 1-9.

Shuler, Kristrina Andrea. "Health, History, and Sugar: A Bioarchaeological Study of Enslaved Africans from Newton Plantation, Barbados, West Indies," Ph.D. Dissertation, Southern Illinois University, Carbondale, 2005.

"Life and Death on a Barbadian Sugar Plantation: Historic and Bioarchaeological Views of Infection and Mortality at Newton Plantation," *International Journal Osteoarchaeology*. 21 (2011): 66–81.

"Nutritional Health of Enslaved Africans from Newton Plantation, Barbados: New Data," *Journal of the Barbados Museum and Historical Society* 51 (2005): 166-186.

Smallwood, Stephanie E. Review of David Eltis, Stephen D. Behrendt, David Richardson, and Herbert S. Klein, eds., *The Trans-Atlantic Slave Trade: A Database on CD-ROM* (Cambridge: Cambridge University Press, 1999), *William and Mary Quarterly*, 3d Series, 58 (January 2001), 253-61.

Smith, Frederick H. *Caribbean Rum: A Social and Economic History*. Gainesville: University Press of Florida, 2005.

Smith, Simon David. Slavery*, Family and Gentry Capitalism in the British Atlantic: The World of the Lascelles, 1648–1834*. New York: Cambridge University Press, 2006.

"Sugar's Poor Relation: Coffee Planting in the British West Indies, 1720–1833," *Slavery & Abolition* 19.3 (December 1998): 68–89.

"An Introduction to the Plantation Journals of the Prospect Sugar Estate," in *Records of the Jamaican Prospect Estate* [microform]. Wakefield, England: Microform Academic Publishers, 2003: 1–29.

Solow, Barbara L. and Stanley L. Engerman, eds. *British Capitalism and Caribbean Slavery: The Legacy of Eric Williams*. New York: Cambridge University Press, 1987.

Stampp, Kenneth. *The Peculiar Institution: Slavery in the Antebellum South*. New York: Alfred Knopf, 1956.

Starkey, Otis P. *The Economic Geography of Barbados: A Study of the Relationships between Environmental Variations and Economic Development*. New York: Columbia University Press, 1939.

Stead, David R. "Risk and Risk Management in English Agriculture, c1750-1850," *Economic History Review* 57.2 (2004): 334-361.

Stinchcombe, Arthur L. *Sugar Island Slavery in the Age of Enlightenment: The Political Economy of the Caribbean World*. Princeton, NJ: Princeton University Press, 1995.

Sutherland, C.H.V. *English Coinage, 600-1900*. London: B.T. Batsford, 1973.

Sweet, James H. Recreating Africa: Culture, Kinship, and Religion in the African-Portuguese World, *1441–1770*. Chapel Hill: University of North Carolina Press, 2003.

Tadman, Michael. "The Demographic Cost of Sugar: Debates on Slave Societies and Natural Increase in the Americas," *The American Historical Review* Vol. 105.5 (2000): 1534-1575.

Taylor, Eric Robert. If We Must Die: Shipboard Insurrections in the Era of the Atlantic Slave Trade. New Orleans: Louisiana State University Press, 2006.

Temin, Peter, ed. *New Economic History*. Middlesex: Penguin Books, 1973.

The Barbados Parliament <http://barbadosparliament.com/the_house_of_assembly.php>.

Thornton, John. *Africa and Africans in the Making of the Atlantic World, 1400–1800* (2nd ed.). New York: Cambridge University Press, 1998.

Turner, Mary. "Planter Profits and Slave Rewards: Amelioration Reconsidered," in Roderick A. McDonald, ed., *West Indies Accounts: Essays on the History of the British Caribbean and the Atlantic Economy in Honour of Richard Sheridan*. Kingston, Jamaica: University of the West Indies Press, 1996, 232–252.

Vandermeer, John. *The Ecology of Intercropping*. Cambridge: Cambridge University Press, 1992.

Walsh, Lorena S. *Motives of Honor, Pleasure and Profit: Plantation Management in the Colonial Chesapeake, 1607–1763*. Chapel Hill: University of North Carolina Press, 2010.

Walton, Gary. "A Symposium on *Time on the Cross*." *Explorations in Economic History* 12 (1975): 333-34.

Ward, J. R. *British West Indian Slavery, 1750–1834: The Process of Amelioration*. New York: Oxford University Press, 1988.

"The Amelioration of British West Indian Slavery, 1750–1834: Technical Change and the Plow," *New West-Indian Guide* 63.1–2 (1989).

"The Profitability of Sugar Planting in the British West Indies, 1650-1834" *Economic History Review* 31.2 (May 1978): 197–213.

Watson Harry L. "Slavery and Development in a Dual Economy: The South and the Market Revolution," in *The Market Revolution in America: Social, Political, and Religious Expressions, 1800–1880*, ed. Melvyn Stokes and Stephen Conway (Charlottesville: University of Virginia Press, 1996), 43–73.

Watson, Karl. A *Kind of Right to be Idle: Old Doll, Matriarch of Newton Plantation*. Cave Hill: University of the West Indies Press, 2000.

The Civilised Island, Barbados: A Social History, 1750–1816. Ellerton, Barbados Graphic Production, 1979.

Watts, David. *The West Indies: Patterns of Development, Culture, and Environmental Change since 1492*. Cambridge: Cambridge University Press, 1987.

Mans Influence on the Vegetation of Barbados 1627-1800. Hull: University of Hull Publications, 1966.

"Origins of Barbadian Cane Hole Agriculture," *Journal of the Barbados Museum and Historical Society* 32.3 (May 1968): 143–151.

Weiss, Thomas. "Review of 'Time on the Cross'," *Project 2001: Significant Works in Economic History,* EH.net (Economic History.net), September 2001.

Williams, Eric. *Capitalism & Slavery.* London: A. Deutsch, 1993 [1944].

Woodman, Harold D. *King Cotton and His Retainers: Financing and Marketing the Cotton Crop of the South, 1800–1925*. Lexington: University of Kentucky Press, 1968.

Wright, Gavin. *Political Economy of the Cotton South: Households, Markets, and Wealth in the Nineteenth Century.* New York: Norton, 1978.

Yamey, B. S. "Scientific Bookkeeping and the Rise of Capitalism," *Economic History Review* 1.2–3 (1949): 99–113.

Zupko, Ronald Edward. *Revolution in Measurement: Western European Weights and Measures Since the Age of Science*. Philadelphia: The American Philosophical Society, 1990.

A Dictionary of Weights and Measures for the British Isles: The Middle Ages to the Twentieth Century. Philadelphia: The American Philosophical Society, 1985.

APPENDIX A

Table A1. *Debits by category on Newton Plantation (1771-1815)*

Year	**Total**	**Provisions**	**Utensils**	**Inc. Charges**	**Negro Hire**	**Serv. Wages**	**Work. Acc.**	**Levy's**
1771	878	182	34	162	32	375	44	49
1773	1179	195	420	98	39	340	38	49
1774	1320	359	37	375	37	416	45	50
1775	1552	167	242	707	13	305	68	50
1776	930	128	204	162	3	339	43	51
1777	1270	144	306	324	23	342	80	51
1778	1110	104	130	323	45	398	60	50
1779	1555	51	377	401	86	567	7	65
1782	704	39	97	211	1	327	6	23
1783	804	65	32	290	22	353	10	31
1784	2223	175	1252	66	0	469	208	54
1785	2596	246	1350	184	98	323	341	54
1786	1316	225	507	159	14	324	11	77
1787	973							
1788	1360	394	289	187	11	338	58	83
1789	1039	104	138	375	0	324	23	76
1790	1224	85	421	163	0	324	151	80
1791	885	95	172	174	0	324	47	74
1792	1024	109	238	198	0	329	94	57
1793	1339	233	123	467	0	342	124	51
1794	1237	380	127	290	0	343	34	64
1795	960	165	137	213	0	339	44	62
1796	2080	241	372	954	38	346	59	70
1797	1955	63	325	425	119	347	605	71
1798	2438	117	700	1147	0	266	141	66
1799	4842	254	205	4011	0	203	103	67
1800	2189	135	191	1549	0	204	54	56
1801	1988	338	256	1063	0	207	59	64
1802	4531							
1803	4719							
1804	773							
1805	2294	655	728	193	73	437	110	97
1806	2092	650	132	600	129	401	109	72
1807	3149	310	372	1363	54	459	515	87
1808	2332	175	0	916	86	411	194	84
1809	2554	179	0	1579	116	470	29	85
1810	3045	124	0	856	116	445	24	86
1811	2255	251	0	1210	155	463	105	72
1812	2701	489	0	724	59	433	377	69
1813	1619	184	0	800	0	401	31	60
1814	1928	883	374	214	0	323	58	77
1815	1615	794	246	99	0	313	85	78
Total	67583	9490	10532	23228	1369	13668	4194	2461
Average	1779	250	277	611	36	360	110	65
Percent	100	14	16	34	2	20	6	4

Source: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

TableA2. *Debits by category on Seawell Plantation (1771-1801)*

Year	Total	Provisions	Utensils	Inc. Charges	Negro Hire	Serv. Wages	Work. Acc.	Levy's
1771	899	128	314	122	49	246	7	34
1773	907	92	285	59	86	334	16	35
1774	944	149	102	205	87	317	49	35
1775	664	161	6	165	23	273	2	35
1776	713	74	108	82	84	255	75	35
1777	743	98	159	99	72	249	31	35
1778	792	57	141	267	26	257	8	35
1779	960	34	195	261	33	363	26	48
1782	1386	281	437	224	21	221	185	17
1783	940	360	20	302	32	195	8	23
1784	2532	264	1240	137	99	232	520	41
1785	2033	141	920	149	85	249	449	41
1786	785	117	288	61	0	229	33	57
1787	765							
1788	1120	203	309	274	0	245	29	60
1789	752	91	0	269	0	240	98	54
1790	991	79	341	135	0	240	138	58
1791	917	82	153	248	0	262	119	54
1792	1344	101	365	415	20	276	125	41
1793	1039	126	245	239	0	273	119	37
1794	832	132	101	262	0	270	20	47
1795	847	118	35	333	0	247	70	44
1796	1172	166	169	469	0	215	102	51
1797	925	177	51	301	0	238	107	50
1798	1103	184	90	456	0	220	106	46
1799	1967	108	177	1259	0	282	94	47
1800	1289	191	328	485	0	219	25	41
1801	1023	171	80	370	0	214	139	50
Total	30385	3886	6660	7647	717	6860	2701	1150
Average	1085	144	247	283	27	254	100	43
Percent	100	13	22	25	2	23	9	4

Source: Abstract of Accounts, 1771-1815, MS 523/34-155, Newton Family Papers.

Table A3. *Debits by category on Mount Alleyne Plantation (1771-1783)*

Year	Total	Provisions	Utensils	Inc. Charges	Negro Hire	Serv. Wages	Work. Acc.	Levy's
1771	1202	231	256	235	150	244	35	52
1773	1161	213	379	20	209	210	78	52
1774	898	143	14	329	42	256	64	49
1775	742	110	25	179	62	261	53	52
1776	667	103	76	100	55	232	49	52
1777	852	108	162	127	140	241	18	56
1778	660	50	129	122	65	220	23	51
1779	662	41	102	159	61	225	13	61
1782	736	24	203	171	66	225	6	41
1783	723	90	149	114	65	257	9	40
Total	8303	1113	1495	1555	917	2371	348	504
Average	830	111	150	156	92	237	35	50
Percent	100	13	18	19	11	29	4	6

Source: Abstract of Accounts, 1771-1815, MS 523/34-54, Newton Family Papers.

Table A4. *Percentage of total debits by category on Newton Plantation (1771-1815)*

Year	**Total**	**Provisions**	**Utensils**	**Inc. Charges**	**Negro Hire**	**Serv. Wages**	**Work. Acc.**	**Levy's**
1771	878	21	4	18	4	43	5	6
1773	1179	17	36	8	3	29	3	4
1774	1320	27	3	28	3	32	3	4
1775	1552	11	16	46	1	20	4	3
1776	930	14	22	17	0	36	5	5
1777	1270	11	24	25	2	27	6	4
1778	1110	9	12	29	4	36	5	4
1779	1555	3	24	26	6	36	0	4
1782	704	6	14	30	0	46	1	3
1783	804	8	4	36	3	44	1	4
1784	2223	8	56	3	0	21	9	2
1785	2596	9	52	7	4	12	13	2
1786	1316	17	39	12	1	25	1	6
1787	973							
1788	1360	29	21	14	1	25	4	6
1789	1039	10	13	36	0	31	2	7
1790	1224	7	34	13	0	26	12	6
1791	885	11	19	20	0	37	5	8
1792	1024	11	23	19	0	32	9	6
1793	1339	17	9	35	0	26	9	4
1794	1237	31	10	23	0	28	3	5
1795	960	17	14	22	0	35	5	6
1796	2080	12	18	46	2	17	3	3
1797	1955	3	17	22	6	18	31	4
1798	2438	5	29	47	0	11	6	3
1799	4842	5	4	83	0	4	2	1
1800	2189	6	9	71	0	9	2	3
1801	1988	17	13	53	0	10	3	3
1802	4531							
1803	4719							
1804	773							
1805	2294	29	32	8	3	19	5	4
1806	2092	31	6	29	6	19	5	3
1807	3149	10	12	43	2	15	16	3
1808	2332	8	39		4	18	8	4
1809	2554	7	62		5	18	1	3
1810	3045	4	28		4	15	1	3
1811	2255	11	54		7	21	5	3
1812	2701	18	27		2	16	14	3
1813	1619	11	49		0	25	2	4
1814	1928	46	19	11	0	17	3	4
1815	1615	49	15	6	0	19	5	5

Source: Abstract of Accounts, 1771-1815, MS 523/34-166, Newton Family Papers.

Table A5. *Percentage of total debits by category on Seawell Plantation (1771-1801)*

Year	Total	Provisions	Utensils	Inc. Charges	Negro Hire	Serv. Wages	Work. Acc.	Levy's
1771	899	14	35	14	5	27	1	4
1773	907	10	31	7	9	37	2	4
1774	944	16	11	22	9	34	5	4
1775	664	24	1	25	3	41	0	5
1776	713	10	15	12	12	36	11	5
1777	743	13	21	13	10	33	4	5
1778	792	7	18	34	3	32	1	4
1779	960	4	20	27	3	38	3	5
1782	1386	20	32	16	2	16	13	1
1783	940	38	2	32	3	21	1	2
1784	2532	10	49	5	4	9	21	2
1785	2033	7	45	7	4	12	22	2
1786	785	15	37	8	0	29	4	7
1787	765							
1788	1120	18	28	24	0	22	3	5
1789	752	12	0	36	0	32	13	7
1790	991	8	34	14	0	24	14	6
1791	917	9	17	27	0	29	13	6
1792	1344	8	27	31	2	21	9	3
1793	1039	12	24	23	0	26	11	4
1794	832	16	12	32	0	32	2	6
1795	847	14	4	39	0	29	8	5
1796	1172	14	14	40	0	18	9	4
1797	925	19	6	33	0	26	12	5
1798	1103	17	8	41	0	20	10	4
1799	1967	6	9	64	0	14	5	2
1800	1289	15	25	38	0	17	2	3
1801	1023	17	8	36	0	21	14	5

Source: Abstract of Accounts, 1771-1815, MS 523/34-155, Newton Family Papers.

Table A6. *Percentage of total debits by category on Mount Alleyne Plantation (1771-1783)*

Year	Total	Provisions	Utensils	Inc. Charges	Negro Hire	Serv. Wages	Work. Acc.	Levy's
1771	1202	19	21	20	12	20	3	4
1773	1161	18	33	2	18	18	7	4
1774	898	16	2	37	5	28	7	5
1775	742	15	3	24	8	35	7	7
1776	667	15	11	15	8	35	7	8
1777	852	13	19	15	16	28	2	7
1778	660	8	20	18	10	33	3	8
1779	662	6	15	24	9	34	2	9
1782	736	3	28	23	9	30	1	6
1783	723	12	21	16	9	36	1	6

Source: Abstract of Accounts, 1771-1815, MS 523/34-54, Newton Family Papers.

Table A7. *Debits by category on Turner Hall's Plantation (1771-1883)*

Year	Total	Provisions	Utensils	Inc. Charges	Negro Hire	Serv. Wages	Work. Acc.	Levy's
1770	2892	599	600	870	341	323	99	59
1771	2801	599	1313	252	345	156	100	39
1772	1752	451	229	130	0	301	351	49
1774	1789	433	387	88	457	413		50
1775	1706	398	311	168	398	386		45
1776	1638	229	455	111	343	431		47
1777	1172	142	386	49	346	362		48
1778	1337	264	239	75	403	442		49
1779	1330	256	256	103	459	459		60
1780	1294	353	121	190	518	399		43
1781	1788	347	394	110	347	465		56
1782	962	224	294	57	357	241		32
1783	1364	327	345	349	403	341		38
1784	2167	327	516	822	254	342		42
1785	1097	323	373	217	254	258		43
1786	1049	364	246	132	253	297		63
1787	946	389	193	50	201	287		54
1789	1265	372	451	34	175	299		55
1793	888	394	217	216	212	375		60

Source: Abstract of Accounts, 1770-1793, E 20680-E 20700, Fitzherbert Papers.

Table A8. *Percentage of total debits by category on Turner's Hall Plantation (1771-1883*

Year	Total	Provisions	Utensils	Inc. Charges	Negro Hire	Serv. Wages	Work. Acc.	Levy's
1770	2892	21	21	30	12	11	3	2
1771	2801	21	47	9	12	6	4	1
1772	1752	26	13	7	0	17	20	3
1774	1789	24	22	5	26	23		3
1775	1706	23	18	10	23	23		3
1776	1638	14	28	7	21	26		3
1777	1172	12	33	4	30	31		4
1778	1337	20	18	6	30	33		4
1779	1330	19	19	7	34	35		5
1780	1294	28	9	15	40	31		3
1781	1788	19	22	6	19	26		3
1782	962	23	30	6	37	25		3
1783	1364	24	25	26	30	25		3
1784	2167	15	24	38	12	16		2
1785	1097	29	34	20	23	24		4
1786	1049	35	23	13	24	28		6
1787	946	41	20	6	21	30		6
1789	1265	29	36	3	14	24		4
1793	888	44	24	24	24	42		6

Source: Abstract of Accounts, 1770-1793, E 20680-E 20700, Fitzherbert Papers.