

**INDISPENSABLE ALIENS:
THE INFLUENCE OF ENGINEERING MIGRANTS
IN MID-NINETEENTH CENTURY CUBA**

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ABSTRACT

How can a small group of migrants, who have barely registered in the history books, have had any significance for the society into which they came? Henry Elkins, and the other foreign engineering workers, or *maquinistas*, who were thrown into prison with him in 1844, accused of involvement in a plot to end slavery and overthrow Spanish rule in Cuba, might have asked themselves this same question. Yet their story, along with that of the other North Atlantic *maquinistas* who travelled to Cuba to operate the revolutionary new steam technology that was being introduced into the island's sugar mills, railways and mines, is revealing of the unexpected ways in which migrants might engage with and influence society. Coming from cities that had been transformed by the industrial revolution, of which they were the vanguard, they arrived in a Spanish colony dependent upon transnational commercial networks for its wealth, and African slavery for its labour. Having emigrated in search of opportunities denied them in the overcrowded labour markets from which they came, they were not disappointed, so valuable were their skills to Cuba's position as the world's leading sugar producer.

But their high salaries and technological contributions could not buy them a place in Cuban society. Though their interaction with the complex matrix of Cuban identity divisions led them to rearticulate themselves, they were different and resented, and they found themselves increasingly defined by this otherness. Ironically, this exclusion helped them to have an unforeseen significance. This did not come through their direct agency, but indirectly, acting as catalytic influences upon wider societal conflicts and developments. Their presence exacerbated the existing social divisions and stimulated responses in rulers and oppressed, such that the superficial innocence of Elkins and his co-accused hid their profound complicity with the events in which they had become unconsciously caught up.

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PREFACE

In 1992, driven by political and personal disappointment, disillusion and boredom, combined with a strong desire for adventure and a new life, I embarked on my own trans-Atlantic voyage. Leaving Britain in the company of an international work brigade, I arrived in Cuba. I had originally only intended to remain in that island for a short time, but my first encounter with Havana left me with the certainty that I had found a place where I could aspire to belong. I set out to journey into the heart of that society, to become a part of it – as much as would be possible for someone who came from outside. It became my home in a way I had never felt about the land of my birth, despite the period in which I was living there being particularly bleak.

This is a study of migration, and the experience of migrants finding themselves in a new society far from where they were born and grew up. I came to this research following my own experience of such a journey. The research project is a product of that experience, for all that it looks at a quite different group of migrants. It began as a means of providing me with the justification to claim residency in Cuba. A friend suggested that I could uncover the forgotten presence and contribution of British migrants in the island, and I began to delve into the archives in Havana. Though I found much material, my life in Cuba took me in different directions and I left my notes on a shelf. They lay forgotten there for several years, until, finding myself back in Britain, I was inspired to turn to them again. They became the foundation of the research I carried out for my Masters dissertation on the presence of British and Irish migrants in nineteenth century Cuba.¹ I discovered something while doing this that continued to intrigue me, and on which I decided to focus: the majority of migrants from the British Isles applying for residency in Cuba in the mid-nineteenth century described their occupation as “*maquinista*”.²

The study has metamorphosed since then. I began with the simple desire to reveal the history of a forgotten group of migrant workers, whose experience in some ways mirrored my own. But I was not content with just an empirical survey. Other

¹ Jonathan Curry-Machado, *Running from Albion: British and Irish migrants in nineteenth century Cuba*, M.Res dissertation, University of North London, 1999.

² Archivo Nacional de Cuba (ANC), Miscelánea de Libros (ML), 11910 & 11397.

questions began to be raised in my mind, which the example of the *maquinistas* seemed to highlight. I became concerned with how they would have interrelated with Cuban society, how they saw themselves and were seen by others, how they may have become changed by their migratory experience and their positive and negative encounters with Cuba, and how they may have themselves influenced the history of the island. As I discovered more material, it became increasingly clear that my initial preconceptions were quite wide of the mark. Revealing the normative origins of my own political and intellectual background, I had expected, even hoped, to find that these *maquinistas* had played an important part in the development of the Cuban working class and its movements, and in the overcoming of racial divisions in the forging of a working class consciousness. But what in the end I found was far more complex than this. Here were migrants who were not just British, but who could be seen as part of a transnational group including North Americans and Europeans. Many were clearly intent on social and material advancement, and their physical presence in Cuba appeared ephemeral, with them failing to directly and consciously engage with Cuban society and politics. Yet they were nevertheless caught up, apparently quite unwittingly, in the traumatic events of what was a very formative period for the Cuban nation. I began to suspect that they had an influence upon the island that bore little relationship to their actual numbers, nor to their own conscious activity. They were, as this thesis sets out to show, catalysts.

Eleven years later, I am writing these words very far from Cuba. However, the migratory impulse that took me there, and led me to try to become a part of Cuban society, can never be lost. Though new dreams and experiences have taken me away, my life and identity continue to be tied up in that island. My continuing migration is now with the companionship of the love whose path joined mine in Havana. Despite the distance that separates us from many of those we care about, we will never have left them behind; and Cuba remains an ever-present reality, not confined by frontiers but carried by the friendships and projects that surround us, and the journeys that from time to time we manage to make back there. Although I am now sitting in the same place where I was before setting out, I am now quite distant from where I was before my path took me across the Atlantic. The past is a foreign place, and our lives are migrations from which we can never turn back.

Sources

In the summer of 2002, while travelling around the province of Cienfuegos, I passed by the entrance of what used to be the entrance to the 'Soledad' sugar plantation, owned by the North American Edwin Atkins. What used to be in the vanguard of research into cane cultivation has now become a botanic garden.³ But by the roadside, like a monument to the sugar production out of which Atkins built his wealth in the nineteenth century, stands one of the estates mid-nineteenth century cane mills. Though this particular piece of machinery is no longer functioning, and the decaying remains of sugar estates can still be stumbled upon throughout Cuba, this was more than just a reminder of the past. Sugar, which rose to dominance in the island in the nineteenth century, continues to be an inescapable part of the Cuban reality. Even the machinery that was the reason for the arrival of the migrant *maquinistas* has not all been left to rust. Later in the same year came the 165th anniversary of the Cuban rail system. While mid-nineteenth century locomotives are unlikely to be found outside of a museum, many of those still used for the hauling of cane are steam engines, constructed over eighty years ago.⁴

It has been said that "research on migration is a little like trying to do an unfamiliar jigsaw in the dark",⁵ and this has certainly proven to be true in the writing of the history of the migrant workers who were the original operators of such machinery. There is no convenient body of archival material upon which to draw. Important though they were to the history of Cuba, and despite having been somewhat in the public eye there during the mid-nineteenth century, they continually slip in and out of sight – a documentary reflection of their ultimately ephemeral physical presence in the island. As a result, it has been necessary to make use of material from a diverse range of sources, some of which make direct reference to these migrants (or their non-migratory counterparts), while in many others elements of their story must be obliquely discerned. Because of this, what follows should not be treated as a definitive account of the *maquinistas* in their totality. Though generalised conclusions are drawn,

³ Edwin Atkins, *Sixty years in Cuba - reminiscences of Edwin F Atkins*, Cambridge: The Riverside Press, 1926; and Katherine Wisley Claflin Weeks & Robert Freeman Weeks, *A New England Family Revisited*, privately published, 1995.

⁴ Associated Press reports from Havana, dated 20th November 2002 and 12th March 2003. See also Adolf Hungry Wolf, *Trains of Cuba*, British Columbia: Canadian Caboose Press, 1996.

⁵ Colin G. Pooley & Ian D. Whyte, 'Introduction: approaches to the study of migration and social change', in Colin G. Pooley & Ian D. Whyte (eds.), *Migrants, Emigrants and Immigrants: a social history of migration*, London: Routledge, 1991, p.3.

these are necessarily based upon the experiences of those for whom material has been found.

Cuba was the starting point for this research, with the discovery that a large proportion of mid-nineteenth century immigrants into the island were described as *maquinistas*.⁶ Following from that, an extensive trawl of the Cuban National Archives was made. Material relating to the *maquinistas* was discovered in a number of collections there. In the records of the Governors of the island (*Gobierno Superior Civil*), references were found in correspondence received by foreign Consuls based in Cuba, but also the results of the official inquiry into the presence and movement of foreign *maquinistas* in the early 1850s – the only time that official and public concerns about the number of such foreign skilled workers in the island was transposed into anything like a systematic attempt to quantify their presence. This was subsequently built upon from records held at the Provincial Archives in Matanzas, in which province most of the *maquinistas* were based. A large body of material relating to applications for machinery patents and privileges was found in the National Archive collections of the *Real Consulado y Junta de Fomento*, and *Intendencia de Hacienda*. Occasional snippets were obtained from the political affairs (*Asuntos Políticos*) and donated collections (*Donativos*), as well as following a search through the chaotically organised *Miscelánea de Expedientes* and *Miscelánea de Libros*. A large amount of material relating directly to the *maquinistas* was obtained from the very detailed reports of the Military Commission (*Comisión Militar*) appointed to investigate the *Escalera* conspiracy in 1844.

Other Cuban sources proved fruitful. The National Library (*Biblioteca Nacional 'José Martí'*) holds transcripts of many of the business communications between Cuban planters and merchants, and the New York merchant bankers Moses Taylor, the originals of which are held at the New York Public Library. These contain many references to the ordering of machinery, and the role played in this by foreign *maquinistas*. Amongst similar transcripts of correspondence from the Cuban-based merchant houses Drake Brothers & Co. in Havana, and Brooks & Co. in Santiago de Cuba, the Moreno Fragnals collection at the Havana City Museum (*Museo de la Ciudad*) included some letters written by Charles Edmonstone, a British-born *maquinista* turned

⁶ ANC, ML, 11910 & 11397.

itinerant engineer, who worked in Cuba for many years, building up a considerable reputation for himself in the Cienfuegos and Santa Clara region.

A small amount of research was carried out in the *Archivo Histórico Nacional* in Madrid. Here four collections were particularly useful in providing some clues to the story of the *maquinistas*, from the point of view of the Spanish authorities: *Estado*; and *Ultramar – Fomento, Gobierno* and *Hacienda*. Regrettably time did not permit an exploration of the *Archivo de las Indias* in Seville.

The *maquinistas* came from three countries in particular (the United States, Great Britain and France), with a small number from other European nations. However, this research has concentrated on British sources. Although this was in part for logistical reasons, it also had a lot to do with the initial framing of the study, which began with a clear focus on the British and Irish. While it became evident that it would be considerably more appropriate to treat this migrant grouping as a transnational one, it has unfortunately not been possible to pursue their history through French and North American archives, as ideally would have been done. As a result, there is an inevitable bias in the material presented here towards those of British origin. Future research will be required to correct this, and to test the conclusions here reached.

Research in Britain began in the Public Record Office, and the extensive consular communications, which contain a number of references to cases of individual *maquinistas* when these fell foul of the local authorities, or otherwise found themselves in difficulties. Some letters or statements made by these migrants themselves were found here, providing the relatively rare opportunity to glimpse something of their story in their own words. The business letters referred to in Cuba (and which mainly related to relations with the United States) were complemented by the correspondence of London-based merchant bankers, such as Barings (the Barings Archive) and Frederick Huth (University College Library and Guildhall Library). The Glasgow University Business Records Centre provided much data on the Glasgow engineering companies responsible for the construction of much of the machinery being imported into Cuba. The Modern Records Centre at Warwick University holds the archives of the Amalgamated Society of Engineers, though relatively little useful information was found there, and nothing directly relating to those who travelled to Cuba. The

Bodleian Library holds the papers of Henry Ezequiel Emerson, relating to the operations of his sugar estates near Sagua la Grande, 'La Palma'; while the Rhodes House Library, also in Oxford, contains the records of the British and Foreign Anti-Slavery Society.

Labelling the *maquinistas* and choosing the time frame

Far from all being members of a clearly-defined trade, the *maquinistas* who arrived in Cuba came from an industrial milieu that brought together "Engineers, Machinists, Millwrights, Smiths, and Pattern Makers",⁷ the boundaries between which were far from clear. Cuban and Spanish records tended to use, fairly indiscriminately, the terms *maquinista* (machinist), *ingeniero* (engineer) and *mecánico* (mechanic) to describe foreign artisans who may have ranged greatly in the level of skill that they possessed, and the attachment they may have felt to a broader working class identity. Since there is no clear transposition between the English and Spanish terminology that really works, and that is not laden with exceptions, this has caused a problem as to how to refer to these migrants.

In this thesis I have preferred to employ the Spanish term '*maquinista*' to collectively talk of a group of migrants who may have individually described themselves in any one of the above ways. This word, in its usage in Cuba in the mid-nineteenth century, was quite inclusive, and was popularly employed to refer to a wide range of engineering workers, from locomotive drivers and simple machine operators, to highly skilled engineers engaged in design and construction. The literal English equivalent 'machinist' lacks this scope in meaning, since there was a far clearer distinction between machinists and engineers in the period. Since many of the migrant *maquinistas* aspired to a higher status, and often succeeded in becoming even inventors in their own right, it seemed most appropriate to make use of a term that would have continued to be used in Cuba when referring to them at all stages of their career.

Any attempt to clearly define a historical period is inevitably somewhat arbitrary. However, it is also at times necessary to set bounds on a study, and I have selected for the purposes of this thesis the mid-nineteenth century, which I have

⁷ Amalgamated Society of Engineers (ASE), Quaterly reports (September 1853), and Annual branch reports (1853) (Modern Records Centre, Warwick (MRC), MSS 259/2/1/1). The full title of the union was the Amalgamated Society of Engineers, Machinists, Millwrights, Smiths, and Pattern Makers.

treated as running from 1837 to 1868. While these dates were in part a practical choice, used to define the range of material that I would be seeking to extract, there is a historical rationale for their use. The first Cuban railroad, from Havana to Güines, was opened in 1837. Although there were steam engines and foreign *maquinistas* in the island prior to this, it was from around this date that their presence began to be felt. This was the period in which sugar rose to unchallenged dominance of the Cuban economy, and the technological revolution in sugar production occurred. The outbreak of the Ten Years' War (the first Cuban war of independence) in 1868 politically signals the start of late nineteenth century Cuban history. The conflict also accelerated change in the sugar industry, and so it seemed to make sense to limit the research to the period prior to this. Nevertheless the lines I draw are not absolute, and, where relevant, evidence has been used from earlier and later sources.

Aims and structure of the thesis

The migrant *maquinistas* in Cuba were numerically dwarfed by the far larger groups of free and coerced migrants, above all from Africa, Spain and China, who went to form the Cuban nation. Nevertheless, it is the contention of this thesis that migrant *maquinistas* had an importance in the island's history that went beyond simply being operators of steam engines. It will be shown that they were influential in technological developments, not just in Cuba itself, but internationally. Through their mere presence, rather than any direct involvement on their part, they will be seen to have acted as catalytic agents in the social and political developments that were changing Cuba in this period. While rescuing from oblivion the history of forgotten individuals such as Henry Elkins and the other foreign *maquinistas* who were arrested in 1844 accused of conspiracy, through their case study an approach will be made to understanding the complex ways in which migrants interact with a host society, are changed by the experience, and themselves influence their new surroundings.

The thesis begins by presenting the story of the migrant *maquinistas* who in 1844 became caught up in the *Escalera* conspiracy and its repressive aftermath, and posing the question as to what the role of the *maquinistas* in this might really have been. Robert Paquette describes the continuing historical enigma of the *Escalera*, and while he dismisses the *maquinistas* as incidental, I seek to extend this enigma to the part that

they played.⁸ This is then placed in its historiographical context, with a discussion of the need for a transnational approach for understanding Cuban history, and migration to the island. The thesis engages on a number of conceptual fronts, and these are explored, looking towards ways of understanding identity, interaction and influence, which are built upon in subsequent chapters.

Chapter Two takes up the transnational idea, exploring the economic and technological background of the migration of the *maquinistas*. It begins by drawing on secondary sources to describe the central role played by sugar in the island's history. More than any other commodity, this connected Cuba to commercial networks, which are here analysed in depth using a wide range of primary documentary sources (above all from the Barings Archive in London, the Moreno Friginals collection, and letters held at the Cuban National Library), showing how this was leading the island to become increasingly dominated by foreign capital. It is shown how this was tied to the introduction of new machinery, in particular for the sugar industry, which also led to the island's becoming dependent upon foreign engineering companies for the importation of technology. This last part, in addition to the sources already mentioned, draws on the company archives kept at Glasgow University.

Chapter Three turns to migration as a transnational network. It begins by using secondary sources to show how important this was to Cuba, before turning the focus upon the migration of the *maquinistas* themselves. The ways in which they were recruited are explored, as are the reasons for their migration and the transnational routes by which they reached the island and the journey that this entailed. Along with references to other research on working class conditions and migration, this section uses Parliamentary Papers, contemporary newspapers, trade union records, correspondence relating to Cornish migration to the copper mines, and extracts from a wide range of other sources in which mention of *maquinista* recruitment is to be found. Their arrival is looked at, with the problems of health and immigration bureaucracy that this often involved, using data found in the Public Record Office; followed by a statistical look at the migrant *maquinistas* as a group, based on an analysis of the domicile records to be found in the Cuban National Archive.

⁸ Robert L. Paquette, *Sugar is Made with Blood: The Conspiracy of La Escalera and the Conflict between Empires over Slavery in Cuba*, Middletown, Conn.: Wesleyan University Press, 1988.

Chapter Four follows the *maquinistas* into their working lives in Cuba, and how they came to be indispensable aliens. Their location and seasonal movement are examined (analysing material found in the Cuban National Archive and the Matanzas Provincial Archive) which suggest that their physical presence in the island was generally ephemeral. This is also demonstrated through a consideration of their marital habits, which tended to tie them into familial networks that lay outside Cuba. Their working conditions, and their position as privileged workers, is looked at, using a wide range of primary sources. Since they were both highly paid, and strategically placed in their relationship to the new machinery, they had considerable opportunities for economic and social advancement, which many of them attempted to exploit, with varying degrees of success. The chapter ends with the technological advances that were being made in Cuba, and the important contribution that the *maquinistas* made to this, drawing in particular on patent applications found in the Cuban National Archive.

Chapter Five attempts to reveal the relationship between the *maquinistas* and Cuban society through an intersectional analysis. For this, seven interrelated categories of identity are defined, through which power was exerted in Cuba in this period: juridical status, race, socio-economic class, gender, nationality, religion and language. In each of these, and their interaction, the apparent contradictions existing between the *maquinistas'* self-perception, and the perception others in Cuba had of them, is examined. The material used is drawn from a range of sources, some secondary but principally primary, from which insights into the *maquinistas* can be gleaned. This tends to suggest that the experience led the *maquinistas* to rearticulate their identity in three important ways: by becoming 'transnational'; by becoming 'masters'; and by becoming 'white'. The chapter ends with an assessment of the social alliances formed by the *maquinistas*.

Chapter Six takes a similar approach, looking at the exclusion of the *maquinistas* from Cuban society, through the deepening sense of 'otherness' that was thrust upon them. Their political and legal encounters are described, showing how these highlighted their position as perennial outsiders. The reaction that many of them had to this status is looked at, including a reciprocal tendency to assert this identity

themselves, rather than find ways by which they might have become transculturated into Cuban society. Transculturation is an attractive, and very powerful theory, which fits comfortably into concepts of transnational networks and migrations, and complex intersecting identities. However it will be seen that it cannot comfortably be applied to the *maquinistas* covered by this study. Far from transculturating to become an integral part of Cuban society, they became defined as Others. This was not simply an effect of their initial arrival, but was something that intensified with time. At least as a group, they appear to have failed to become integrated with Cuban society. Anna Triandafyllidou has argued that certain groups may come to act as “significant others”.⁹ Though she limits this specifically to the establishment of national identity, there is much in the story of the *maquinistas* to suggest that this was what they had effectively become, though with more far reaching social consequences.

In Chapter Seven two case studies are developed to show how the *maquinistas*, despite their lack of direct engagement with developments in Cuba, in fact may have played what is here characterised as a catalytic influence. The first example is that of Cuban labour, and the training of indigenous *maquinistas*. Focusing on the somewhat abortive attempt to establish a School for *Maquinistas* in Havana, it uses in particular material found in the records of the *Sociedad Económica*, along with Cuban newspaper reports and government correspondence. The second returns to the role played by the *maquinistas* in the *Escalera* conspiracy, and its repressive aftermath, drawing on the dispatches of the British representatives in Havana sent to the Foreign Office in London, and the verbatim records of the proceedings of the Military Commission in Matanzas. The chapter concludes by suggesting a theory for the catalytic influence of excluded migrant groups.

The thesis concludes by pulling together the different strands raised in earlier chapters into a single coherent framework for analysing social change and influence, and the involvement of a group such as the *maquinistas* in this; and attempts to answer the question with which the study starts: How can a small group of migrants, who have barely registered in the history books, have had any significance for the society into which they came?

⁹ Anna Triandafyllidou, ‘National identity and the “other”’, *Ethnic and Racial Studies*, 21:4 (July 1998), pp.593-612.

At the end of the thesis can be found two appendices that might be of assistance to the reader. The first provides an in depth view and explanation of the sugar-making process as it was in mid-nineteenth century Cuba, along with the important innovations of the period. The second is a brief time-line, showing important events that were occurring during the period in Cuba, and the wider Atlantic world.

Acknowledgments

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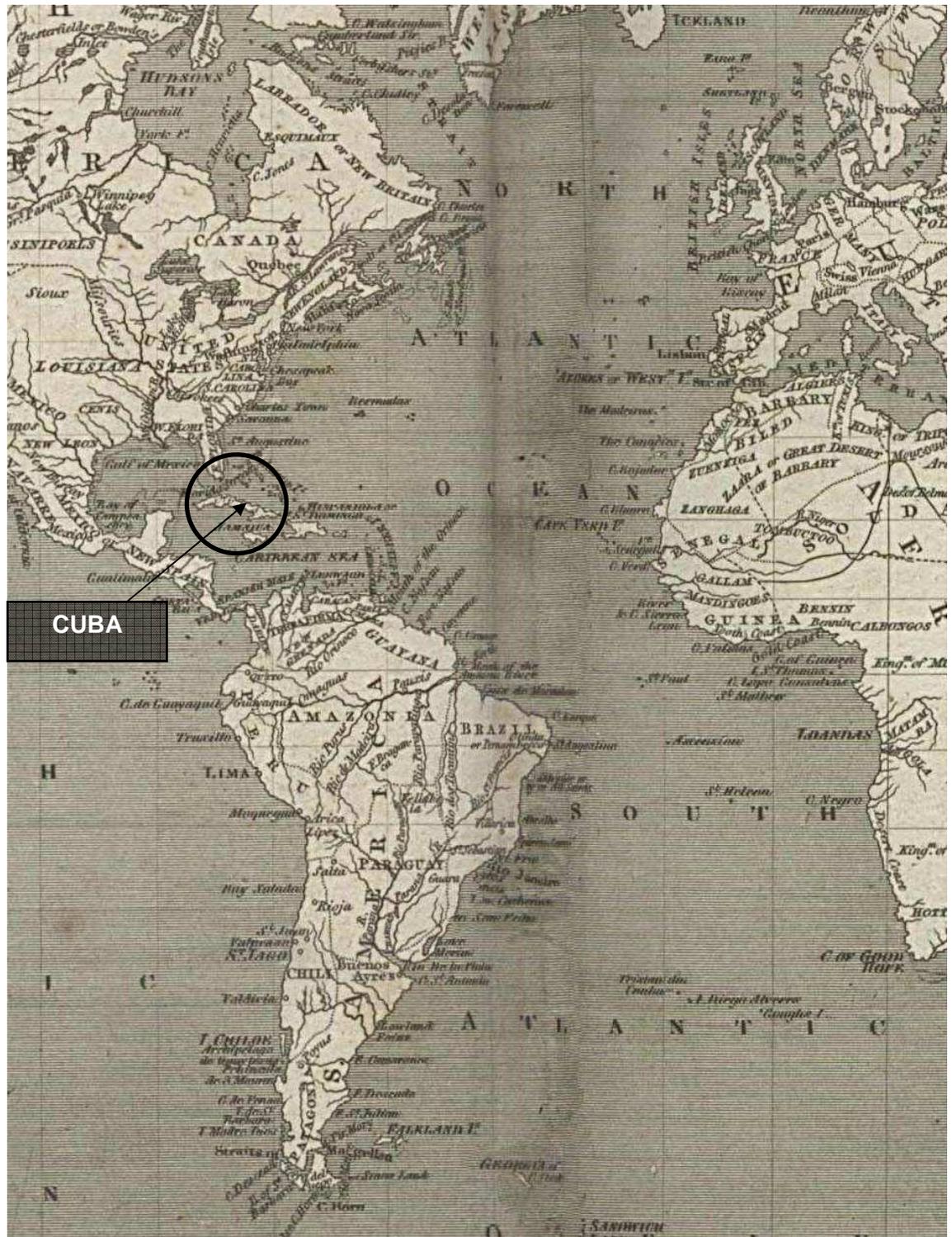
Ever since we first met in Havana, Jorge Giovannetti has continually provided me with his excellent company, when we have managed to coincide geographically, and has also openly shared with me his ideas. I cannot quantify the great help that his constructively critical reading of my work, his questions, suggested answers and reading, have played in seeing me through to the end of this project; and how his own experience and example has served as encouragement to me. Since then Jorge has become my son's godfather, and I know he will always play a significant role in the life of my family. As he wrote two years ago in his own thesis, "paying back favours is not an expectation of real friendship; unconditional and unlimited commitment is",¹⁰ and that is what he can always expect from me.

¹⁰ Jorge Giovannetti, *Black British Subjects in Cuba: Race, ethnicity, nation and identity in the migratory experience, 1898-1938*, PhD Thesis, University of North London, 2001, p.viii.

But for all the help and support that I have received from others over the years, this is overshadowed by the daily love and strength that I have been given by Eldimarys: my wife, friend, companion and lover. Ever since we first fortuitously, and fatefully, met in Havana she has filled me with energy, and more than anything else flying with her has stretched my horizons, built my dreams, and given me the faith I needed to work on and complete this research. She has also given me something infinitely more valuable, a creative work that no amount of writing could match: our son, Ashleigh Johann, my little wanderer who was conceived, born and has grown so fast in the time that it has taken me to complete this thesis.

Map 1 - The Atlantic World

(Source: 'The World on Percaptor's Projection, 1820', from Abraham Rees, *The Cyclopaedia or, Universal Dictionary of Arts, Sciences, and Literature*, reproduced at http://www.lib.utexas.edu/maps/historical/world_cyclopaedia_1820.jpg)



Map 2 - The Island of Cuba

(Source: Pérez, *Winds of Change*, pp.2-3)

[Illustration removed for copyright reasons]

Map 3 - Principal Sugar Districts (Matanzas, Cárdenas, Colón), c.1856
(Source: Bergad, *Cuban Rural Society*, p.94)

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CHAPTER ONE

INTRODUCTION:

THE *ESCALERA*, *MAQUINISTAS*, AND THE WIDER DEBATES

On 7th April 1844, a woman calling herself Mrs Elkins visited the British Consul General in Havana, Joseph Tucker Crawford, “to complain of the arrest, ill treatment and imprisonment of her Husband”,¹ accused of involvement in a conspiracy to bring about a general uprising, aimed at ending slavery and Spanish domination of the island. Henry Elkins was an English *maquinista*, who had travelled to Cuba from Birmingham some time around 1841 “to manage a steam engine on an estate belonging partly to one Ventosa”,² near Cárdenas. His wife complained that their room had been searched, and that the officers removed private papers, and even some of her clothes: “nay more they insisted upon and did search her person”.³ While the arresting officers took great pains to assert the consideration with which Elkins was treated, his wife (and subsequently Elkins himself) told a very different story. According to this version, he was taken to Cárdenas, “where he was thrown into prison and treated in the most cruel manner, as a criminal [and] all access to him denied his wife not even being allowed to see him”. His torments continued a few days later, on being taken to Matanzas, “where he was put into the stocks and otherways [sic] ill treated”, without even being told under what charges he was being held.⁴ Here he awaited his interrogation and trial, and was kept in prison for the best part of a year, with the public prosecutor calling for him to be executed.⁵

Around the same time, Donald McIntosh, a *maquinista* from Inverness employed on the railroad works in Havana, was likewise arrested. He later told of how he had been tricked out of his workshop by two agents, who claimed that there “was a friend round the corner who wished to see me and said they would not keep me more than five minutes”. Not even given time to fetch his hat and jacket, he was arrested as soon as he was out of sight of his workmates. “They confined me in a dirty black hole,

¹ Letter from Joseph T. Crawford to Captain General O’Donnell, Havana, 7th April 1844 (Public Record Office, London (PRO), Foreign Office papers (FO), 72/664, No.4).

² Letter from James Kennedy (British Commissary Judge on Mixed Court for the Suppression of the Slave Trade) to Foreign Office, Havana, 8th May 1844 (PRO, FO 84/508, No.23).

³ Letter from Crawford to O’Donnell, Havana, 7th April 1844 (PRO, FO 72/664, No.4).

⁴ Letter from Crawford to O’Donnell, Havana, 7th April 1844 (PRO, FO 72/664, No.4).

⁵ Letter from Crawford to Earl of Aberdeen, Havana, 7th September 1844 (PRO, FO 72/664, No.35).

without anything to sleep on but the bare ground”, before shipping him to Matanzas by steamer, where he was kept in prison until the end of September.⁶ During April and May a number of other foreign workers, most of them *maquinistas* on the sugar estates, were also arrested. By June, nine or ten British subjects (English, Scots and Irish) were under arrest,⁷ along with at least four North Americans, and a Russian:⁸ “all of them Engineers, or Mechanics”.⁹

Many others at some point fell on the wrong side of the law, only to be released for lack of evidence. The English *maquinista*, Henry Symons, was arrested purely because of his nationality, and possibly his occupation. He was eventually released “saying that I had been taken by mistake”.¹⁰ Robert Mathers was kept in prison in Matanzas from 15th to 26th April, before being discharged “without having been accused of any crime”. However, on hearing of his release, the Lieutenant Governor of Cárdenas ordered him to be rearrested, and taken back to Matanzas, where he was imprisoned “as a common criminal, thrown among the basest malefactors, suffering every privation and indignity which those alone can imagine or describe who have witnessed the like”.¹¹ He was eventually “discharged from the jail of Matanzas without any trial, and is still in ignorance of what he was accused”.¹²

The events that led to the arrest and imprisonment of the foreign *maquinistas* began to come to a head during 1843. Tensions had been mounting for some time in Cuba, in particular in the principal sugar growing districts of Havana and Matanzas. There was a high concentration of black slaves in this region, who were displaying an increasing militancy, developing a level of political and even revolutionary consciousness that belied the perception of them as mere victims.¹³ By 1840, slave resistance of both an active and passive kind had weakened the control of the Creole elite and the Spanish authorities in the countryside;¹⁴ and the white population was

⁶ Statement of Donald McIntosh, Havana, 7th October 1844 (PRO, FO 72/664, No.41).

⁷ Letter from Crawford to Aberdeen, Havana, 7th June 1844 (PRO, FO 72/664, No.12).

⁸ ANC, Comisión Militar (CM) 51/1, 1ra, p.32.

⁹ Letter from George P. Bell to Crawford, Cárdenas, 12th May 1844 (PRO, FO 72/664, No.12).

¹⁰ Letter from Henry Symons to Crawford, Havana, 3rd August 1844 (PRO, FO 72/664, No.27).

¹¹ Statement of Robert Mathers (PRO, FO 72/664, No.12).

¹² Letter from Crawford to O’Donnell, Havana, 3rd June 1844 (PRO, FO 72/664, No.12).

¹³ Paquette, *Sugar is Made with Blood*, p.223.

¹⁴ Paquette, *Sugar is Made with Blood*, p.78.

becoming increasingly hysterical about the blacks, the British (who were the principal protagonists in the outlawing of the slave trade), and the possibility of an uprising.¹⁵

The much-anticipated slave uprising broke out on 26th March, 1843, in one of the largest sugar estates in one of the principal sugar producing districts. The 'Alcancía' plantation, near Bemba (now Jovellanos) was owned by Joaquín Peñalver, an absentee *hacendado*, and was administered by a "superannuated, weak and withall an intemperate man".¹⁶ The revolt began around one in the morning, with the killing of the mill *maquinista* and two other white employees, and much destruction of property.¹⁷ They then progressed to a neighbouring estate, and "destroyed the place leaving only untouched the sugar house", before moving onto the Luisa, which suffered the same fate.¹⁸ In all, insurrection occurred that night on five of the estates in the district, three of which were set fire to.¹⁹ Fearing that the slaves working on the railways would join the revolt, the owners of the Cárdenas-Júcaro line took two hundred of their slaves to Cárdenas, where they "were shut up in a wooden building and on the night they managed to scape [sic] & went to join the Mutineers".²⁰ By the time they had covered the distance of about twenty kilometres that separated Bemba from Cárdenas, the number of the insurgents had reached almost one thousand.²¹ Since damage was also caused to the railway that night, there were suspicions that they received assistance from some of the white carters and muleteers, whose business was threatened by the new trains.²² Troops were quickly mobilised from Matanzas, and, combined with the efforts of the local white population, the rebellious slaves were driven into the hills. It was later reported that while only five whites were killed that night, "more than half the 950 engaged in the outbreak have perished, chiefly by their own hands, the woods being filled with hanging victims".²³

Throughout 1843, even where open rebellion did not take place, generally higher levels of slave insubordination were reported, even amongst the normally trustworthy

¹⁵ Paquette, *Sugar is Made with Blood*, p.180.

¹⁶ Letter from J. M. Morales to Henry A. Coit, Havana, 1st April 1843 (Biblioteca Nacional 'José Martí', Havana (BNJM), C. M. Lobo 113, No.1, File 2).

¹⁷ Paquette, *Sugar is Made with Blood*, p.177.

¹⁸ Letter from Morales to Coit, Havana, 1st April 1843 (BNJM, Lobo 113/1/2).

¹⁹ Letter from Crawford to Aberdeen, Havana, 18th April 1843 (PRO, FO 72/634, no.15).

²⁰ Letter from Morales to Coit, Havana, 1st April 1843 (BNJM, Lobo 113/1/2).

²¹ Letter from Crawford to Aberdeen, Havana, 18th April 1843 (PRO, FO 72/634, No.15).

²² Paquette, *Sugar is Made with Blood*, p.210.

²³ Letter from Crawford to Aberdeen, Havana, 18th April 1843 (PRO, FO 72/634, No.15).

house slaves.²⁴ The maroon leader, José Dolores, became a legend amongst plantation slaves throughout Western Cuba, leading guerilla-style raids on plantations, and seeking to free the slaves imprisoned following the 'Alcancía' uprising.²⁵ In April, rumours abounded in Havana of other insurrectionary attempts, both near Güines and Cárdenas, although "it is said they did not get to be of very serious moment".²⁶ In May, the slaves rebelled on the 'Santa Rosa' and 'Majagua' plantations near Sabanilla, both owned by Domingo Aldama, one of the wealthiest and most influential of the Creole landowners. In July, another such uprising occurred on the 'Arratía' estate, near Corral Falso.²⁷

On 5th November there occurred what has been described as "the biggest rebellion ever seen in the island".²⁸ Slaves on the 'Triumvirato' sugar estate, owned by the Alfonso family, rose up and went to the neighbouring 'Acana' plantation, also owned by the Alfonsos, where there were still slaves being kept in shackles following an earlier rebellion. Here they killed six whites, and wounded several others, before the troops from Matanzas could arrive to drive them off. Far from being put down, the rebellion continued to spread to other plantations in the vicinity. A small slave army of some three hundred was ambushed by the troops on the 'San Rafael' estate, and the rebels fled after a battle that lasted several hours.²⁹

What might have been dismissed as a spontaneous uprising took on a more sinister meaning when one of the slave women of the 'Santísima Trinidad' estate, not far from the 'Triumvirato' and 'Acana', denounced the existence of a conspiracy amongst the slaves to bring about a general uprising. Her evidence, with which she obtained her own freedom, led to the immediate arrest of hundreds of slaves from the plantations in the area, sixteen of whom were executed.³⁰ White racial paranoia now

²⁴ Paquette, *Sugar is Made with Blood*, p.210.

²⁵ Paquette, *Sugar is Made with Blood*, p.178.

²⁶ Letter from Crawford to Aberdeen, Havana, 18th April 1843 (PRO, FO 72/634, No.15).

²⁷ Paquette, *Sugar is Made with Blood*, p.178.

²⁸ Manuel Barcia Paz, 'Entre amenazas y quejas: un acercamiento al papel jugado por los diplomáticos ingleses en Cuba durante la conspiración de la Escalera, 1844', *Colonial Latin America Historical Review*, 10:1 (Winter 2001), pp.1-25 - my translation.

²⁹ Paquette, *Sugar is Made with Blood*, pp.209-10.

³⁰ Paquette, *Sugar is Made with Blood*, p.215 ; María del Carmen Barcia Zequeira & Manuel Barcia Paz, 'La Conspiración de la Escalera : el precio de una traición', *Catauro: Revista Cubana de Antropología*, 2:3 (2001), pp.199-204.

began to run out of control, with rumours of attempts to poison them spreading panic.³¹

It also lit the fuse of the investigations, criminal proceedings, and brutal repression that swept through the region over the following months, and in which the foreign *maquinistas* became caught up. In January 1844, a conspiracy was allegedly discovered on the 'Andrea' estate, near Macurijes – very close to where the March 1843 uprising had broken out. It now seemed that the plot, which was becoming increasingly generalised and exaggerated in the popular mind, had involved not just slaves, but also free people of colour.³² The following month, rumours were circulating that a deposit of arms and munitions had been discovered near Güines;³³ with the North American William Norwood commenting that the slaves had become very restive, and that conditions were “not very pleasant”.³⁴

A Military Commission was charged with pursuing the enquiry, and bringing to 'justice' those involved. This was “a special tribunal ...which since its formation has been permanently constituted for the trial of serious crimes directly against the publick [sic] tranquility”.³⁵ Over the coming months, the Military Commission uncovered what they claimed to have been a highly organised conspiracy of free blacks and slaves, who had established a government in waiting, with agents spread throughout the island.³⁶ It was said that their aim had been to “constitute in this Island a Republic just like that of Santo Domingo, [with the] assassination of all the whites in order to do so”.³⁷ Gabriel de la Concepción Valdés (better known as the former slave and celebrated poet Plácido) was identified as the principal leader of the plot, and one of the conduits through which arms would be brought into Cuba. He was accused of having “gone to

³¹ Paquette, *Sugar is Made with Blood*, p.223.

³² Paquette, *Sugar is Made with Blood*, p.217.

³³ Letter from José del Castillo to John Scoble, Havana, 14th February 1844 (Rhodes House Library, Oxford (RH), British and Foreign Anti-Slavery Society (BFASS), MSS Brit Emp s.18, C 15/10).

³⁴ William Norwood Diary, 18th February 1844 (Virginia Historical Society), cited by Paquette, *Sugar is Made with Blood*, p.222.

³⁵ Letter from Crawford to Aberdeen, Havana, 10th April 1844 (PRO, FO 72/664, No.4).

³⁶ Sentence (12a) pronounced by Military Commission, Matanzas (Archivo Histórico Nacional (AHN), Estado (E), 8057/1, No.1).

³⁷ Evidence of Félix Ponce (a carpenter fro Macurijes), date not given (AHN, E 8057/1, No.2) – my translation.

Santo Domingo to treat with the people there so that they might give arms, and help them with men".³⁸

The repression meted out against those alleged to have been involved in the conspiracy, and against the black and coloured population in general throughout the sugar growing districts, was swift and terrible. The 'Triumvirato' uprising coincided with the arrival in Cuba of the new Captain General, Leopoldo O'Donnell, who had been sent because not only had his predecessor, Gerónimo Valdés, failed to suppress the rebellion, but he had seriously underestimated its potency. By July 1844, the *British and Foreign Anti-Slavery Reporter* was reporting:

The fierce hatred which had at first been directed almost exclusively against the slaves, has at length poured itself like a flood upon the free coloured population, and the spirit of vengeance is making frightful havoc among them. This entire class ...are represented ...as in the greatest agony, their eyes smitten by beholding their fellows go to gaol daily by dozens, and their ears ringing with the tales of suffering to which their husbands, their children, their relations and friends, are consigned.³⁹

Foreign observers described the barbaric form that the investigation took, in the process helping to give the conspiracy the name for which it is now known - *La Escalera*, or ladder:

Stripped naked & lashed to a ladder on the ground with a rope round each wrist so tight that the blood could scarcely [sic] circulate, ...in this position, the poor negro was thought to be ready to commence his declaration! Every limb trembling with affright, and every cord & muscle quivering in expectation of the lash, knotted and thicker than a man's thumb! Good God! Is it in the nineteenth century that we live? Or the palmy days of the Inquisition once more returned?⁴⁰

From the start of the slave uprisings in 1843, foreigners such as the *maquinistas* came under suspicion and scrutiny. As a result, by June 1843, they were being denied passports to travel into the Cuban interior;⁴¹ and it was suspected that the slave revolts of November 1843 had been provoked by a number of whites on the estates, who had

³⁸ Evidence of Pedro Ganga, Gibacoa, 13th May 1844 (ANC, CM, 51/1, 1ra, pp.78-79) - my translation.

³⁹ *British and Foreign Anti-Slavery Reporter*, 24th July 1844.

⁴⁰ Letter from Theodore Phinney to Crawford, Havana, 29th June 1844 (PRO, FO 72/664, no.19).

⁴¹ Letter from Crawford to Commodore H. D. Byng, Havana, 9th June 1843 (PRO, FO 72/634, No.30).

“ordered the negroes to rise, burn, and murder all they could find”.⁴² The North American *maquinistas*, John Thompson and Thomas Savage, were identified by witnesses as having been involved in recruiting slaves.⁴³ One witness declared that the *maquinista*, William Bisby, had “indicated to him his desire to exterminate the Spanish”, and was involved in a plot started by the previous American *maquinista* on the estate, Carlos Smith – “one of the principal leaders”.⁴⁴ This evidence against Bisby was highly questionable, having been “arrested on testimony extorted from a negro after he had received twelve hundred lashes”.⁴⁵ Similarly William Mason, from Boston, was accused of having tried to seduce slaves, including those who worked with him in the engine house where he was *maquinista*.⁴⁶

Donald McIntosh was accused of having seduced several slaves belonging to the plantation where he had been working in 1842 and 1843, encouraging them to join an uprising against the whites.⁴⁷ One of the slaves from the engine house declared that McIntosh thought that the blacks should rise up like those of Santo Domingo, and other places, and that they would be provided with arms to do so.⁴⁸ Another from the same plantation claimed that McIntosh had told him that the English would come to help them make war against the whites, and that when they rose up they would not lack arms and munitions, which would be brought by the English in the boats that worked the Cuban coast.⁴⁹ Importantly, evidence was also given of how McIntosh had informed them that the revolution would start in Matanzas, claiming that in 1843 several English *maquinistas* had met together on the estate.⁵⁰

These other *maquinistas* were Daniel Downing, Robert Highton and Fernando Klever, and it was not long before they were likewise arrested.⁵¹ Working on nearby plantations, they all knew one another, and did occasionally meet. However, the entire case against them was based upon conversations that had supposedly occurred

⁴² Philadelphia correspondent of the *Morning Chronicle* (in *British and Foreign Anti-Slavery Reporter*, 7th February 1844).

⁴³ ANC, CM, 51/1 1ra, p.5.

⁴⁴ Evidence of Nicolás Criollo (ANC, CM, 51/1 2da, pp.408-409) – my translation.

⁴⁵ *British and Foreign Anti-Slavery Reporter*, 24th July 1844 – reproducing a report in an unidentified North American newspaper.

⁴⁶ Evidence of Gabriel Frion, 9th & 11th April 1844 (ANC, CM, 63/9).

⁴⁷ ANC, CM, 51/1, 1ra, pp.57-60.

⁴⁸ ANC, CM, 51/1, 1ra, p.68.

⁴⁹ ANC, CM, 51/1, 1ra, pp.65-6.

⁵⁰ ANC, CM, 51/1, 1ra, p.67.

⁵¹ Letter from Crawford to O'Donnell, Havana, 5th May 1844 (PRO, FO 72/664, No.8).

between them and Elkins, overheard by the slaves. Following the arrest of Elkins, the engine room slaves of the estate where he worked, “were whiped [sic] to say what foreigners used to go there, of course they told for they knew us”. As Downing pointed out, “surely the little conversation I used to have with poor Elkins was in English therefore the negroes could not understand us”.⁵²

Of all the foreign *maquinistas* accused, it was Henry Elkins who faced the most serious and well-supported charges, and it was thanks to his involvement that several of the others found themselves in prison. While other *maquinistas* were accused of simple seduction and recruitment, the case against Elkins was “that he was to receive some thousands stands [sic] of arms from England”.⁵³ The charge seems to have originated from a Luis Segui, who accused Elkins of having seduced him into the conspiracy, offering him a job and ten thousand pesos as a prize for his services. Elkins had allegedly communicated to Segui, through an intermediary, that a load of rifles was to arrive at Cayo Blanco, for distribution to the slaves on the sugar estate where Elkins worked, and that he was in communication about this with the British Consul in Havana and with a general from Santo Domingo.⁵⁴ Other witnesses corroborated Segui’s testimony, though he was himself seriously implicated in the conspiracy and amongst those later executed. One claimed that Elkins had offered him a command in the revolutionary troops.⁵⁵ Others declared that Elkins, as well as having been commissioned by the English to organise the planned uprising, had received funds for this purpose, which he had distributed to those who wanted to help. He was also supposedly in communication with another English *maquinista* on the railroad in Havana (presumably McIntosh).⁵⁶ When a Puerto Rican slave, from the estate where Elkins was *maquinista*, was asked whether he had heard other slaves talking at night about hurting the whites, he replied that he had heard this, but from the mouth of Elkins, whom he had seen meeting with other *maquinistas*.⁵⁷

⁵² Statement of Downing (PRO, FO 72/664, No.12).

⁵³ Letter from William Sim to Crawford, 1st July 1844 (PRO, FO 72/664, No.17).

⁵⁴ Final summary made by Francisco Yllas (Public Prosecutor of the Military Commission), Matanzas, 22nd December 1844 (ANC, CM, 51/1 3ra, p.706) – my translation.

⁵⁵ ANC, CM, 51/1, 2da, pp.268-70.

⁵⁶ Evidence of Juan Espinosa Barroso, 13th April 1844 (ANC, CM, 51/1, pp.352-6).

⁵⁷ Evidence of Antonio from Puerto Rico, Ingenio de la Mola, 22nd March 1844 (ANC, CM, 51/1, pp.260-2).

Examination of the evidence presented against Elkins is revealing of how distorted the cases made against the *maquinistas* were. Far from smuggling arms, the only weapon he had ever owned, he claimed, was “a two barreled [sic] gun”.⁵⁸ He was also charged with having corresponded with the English Government and abolitionists. Although on his own admission he had received letters, these were all from friends or related to machinery.⁵⁹ The charge was made despite the fact that his belongings had been thoroughly searched upon his arrest, and none of his papers was even remotely connected with the existence of a conspiracy, let alone his personal involvement – as was admitted, in the end, by the Spanish authorities.⁶⁰ What is more, these same papers provided the proof, in the form of a receipt for a journey from New Orleans to Havana, that Elkins could not have been in Cuba on the date that one of his accusers claimed he had conspired with him. He explained that Morales had probably testified against him, since he was “an enemy of mine in consequence of my not consenting to his setting the Boiler”.⁶¹

All the *maquinistas* were eventually found innocent by the Spanish authorities. The accusations that had been made against them were dropped far more suddenly than they had appeared in the first place. On 9th October 1844, all the witnesses who were recalled to testify by the Military Commission now denied knowing of any involvement by foreign *maquinistas* in the conspiracy, and where pressed, claimed to have made statements against them initially so as to help in their own cases.⁶² This led to the almost immediate release of most of those held. Elkins had to wait a little longer, since the charges against him were far more severe, and apparently solidier, than those proffered against the others. He was, after all, facing possible execution. But the case against him also collapsed on 16th November, again with the retraction *en masse* of the statements made by several key witnesses; and because Luis Segui and Manuel Morales, from whom the charges had originated, had already been executed.⁶³ Elkins was eventually bailed on 30th November 1844. All of the accused *maquinistas* were found innocent on 23rd December 1844. By this time this was a mere formality, and

⁵⁸ Letter from William Sim to Crawford, Matanzas, 3rd July 1844 (PRO, FO 72/664, No.17).

⁵⁹ Litter from Sim to Crawford, 1st July 1844 (PRO, FO 72/664, No.17).

⁶⁰ Final summary made by Yllas, Matanzas, 22nd December 1844 (ANC, CM, 51/1 3ra, p.707).

⁶¹ Letter from Elkins to Crawford, Havana, 12th December 1844 (PRO, FO 72/664, No.52).

⁶² ANC, CM, 51/1 2da, pp.500-1.

⁶³ ANC, CM, 51/1 2da, pp.556-64.

none of them appeared at the hearing, leaving the representation of their cases to their officially appointed Defenders.⁶⁴

Some historians have sought to deny that the conspiracy ever really existed, or else have downplayed it in favour of stressing the exaggeration of the Spanish repression.⁶⁵ Others have defended the idea that there was an attempted revolution of slaves and free men at this time.⁶⁶ There have also been those who, while accepting that there was a conspiracy, rather than focusing on its popular origins have preferred to see it in terms of British machinations.⁶⁷ Within all of these accounts, the role of the *maquinistas* has been barely mentioned. Although Robert Paquette refers to their arrest, he places little importance on this. They simply had the “misfortune of being caught in the wrong place by the wrong person at the wrong time”.⁶⁸ While it is probable that they really did not have a direct part in any conspiracy, to dismiss them so easily ignores the uncomfortable question of why, if they were innocent, were they singled out for such treatment.⁶⁹

This thesis seeks to uncover the history of the foreign *maquinistas*, who travelled to Cuba to work the newly imported steam-driven machinery employed in the sugar mills, railways, mines and foundries in the mid-nineteenth century. These were working class migrants whose presence in the island has been relegated, at best, to

⁶⁴ ANC, CM, 51/1, 3ra, pp.732-733.

⁶⁵ Vidal Morales y Morales, *Inicadores y primeros mártires de la revolución cubana*, Havana, 1901, pp.129-77; Francisco González del Valle, *La Conspiración de la Escalera. I. José de la Luz y Caballero*, Havana, 1925; Pedro Deschamps Chapeaux, *El negro en la economía habanera del siglo XIX*, Havana: Unión de Artistas y Escritores de Cuba, 1971; Franklin Knight, *Slave Society in Cuba during the Nineteenth Century*, Madison, Wisconsin: University of Wisconsin Press, 1970.

⁶⁶ José de J. Márquez, ‘Plácido y los conspiradores de 1844’, *Revista Cubana*, 20 (1894); Fernando Ortiz, *Hampa afro-cubana; los negros esclavos; estudio sociológico y de derecho público*, Havana: Revista Bimestre Cubana, 1916; José Manuel de Ximeno, ‘Un pobre histrión (Plácido)’, in *Primer Congreso Nacional de Historia*, Vol.2, Havana, 1943, pp.371-7, and ‘Apuntes para la historia constitucional de Cuba: Los complicados con Plácido’, *Libertad nacional*, 4th May 1944; Gwendolyn Midlo Hall, *Social Control in Slave Plantation Societies: A Comparison of St Domingue and Cuba*, Baltimore: Johns Hopkins University Press, 1971.

⁶⁷ Mario Hernández y Sánchez-Barba, ‘David Turnbull y el problema de la esclavitud en Cuba’, *Anuario de estudios americanos*, 14 (1957); Daisy Cué Fernández, ‘Plácido y la conspiración de la Escalera’, *Santiago*, 42 (June 1981), pp.145-206; Rodolfo Sarracino, *Inglaterra: sus dos caras en la lucha cubana por la abolición*, Havana: Editorial Letras Cubanas, 1989.

⁶⁸ Paquette, *Sugar is Made with Blood*, pp.224-6 & 234.

⁶⁹ I have previously made a start at attempting to rescue the important part played by not just the *maquinistas*, but also other marginal groups, in the events surrounding the *Escalera* (Jonathan Curry-Machado, ‘Catalysts in the Crucible: Kidnapped Caribbeans, Free Black British Subjects and Migrant British Machinists in the Failed Cuban Revolution of 1843’, in Nancy Naro (ed.), *Blacks and National Identity in 19th Century Latin America*, London: Institute of Latin American Studies, 2002, pp.123-42).

passing references. They have been seen as little more than historical footnotes, forgotten in the midst of the large scale migrations, and social, political and economic upheavals, of the era. Laird Bergad, in his study of Cuban rural society, does no more than briefly assert the dependence of the Cuban sugar industry on foreign *maquinistas*, and the high wages they received.⁷⁰ Despite the attention Manuel Moreno Fraginals gives to the development of sugar machinery in the nineteenth century, for him the *maquinistas* “remained relatively anonymous”, though giving “the mill a certain exotic tinge since they were nearly always foreigners”.⁷¹ Other Cuban historians dealing with the development of the sugar industry in the period, such as María del Carmen Barcia and Fé Iglesias, are similarly blind to the important part played by these workers.⁷² Oscar Zanetti and Alejandro García devote no more than a couple of paragraphs in their otherwise comprehensive history of Cuban railways to the early involvement of migrant *maquinistas*.⁷³ Joan Casanovas, in his examination of the emergent Cuban proletariat in the mid-nineteenth century, makes only passing reference to the formation of a Spanish Steam Engine Machinists’ Society in 1850, but says nothing of the presence and role of the foreign *maquinistas* in this history, nor of why this mutual society was founded in such an ethnically-defined way as to exclude their foreign counterparts.⁷⁴

In order to arrive at an understanding of the complex interaction of the *maquinistas* with Cuban society, it is necessary to engage with a number of historiographical and conceptual debates. What follows in this introduction is an exploration of these, and their particular importance for Cuban and Caribbean history, so as to theoretically contextualise the more empirical approach of the subsequent chapters.

⁷⁰ Laird W. Bergad, *Cuban Rural Society in the Nineteenth Century: The Social and Economic History of Monoculture in Matanzas*, Princeton, NJ: Princeton University Press, 1990, pp.121-2, 131 & 163.

⁷¹ Manuel Moreno Fraginals, *The Sugar Mill: The Socio-Economic Complex of Sugar in Cuba, 1760-1860*, New York & London: Monthly Review Press, 1976, p.152. See also the extended version of this same study: Manuel Moreno Fraginals, *El Ingenio*, 3 vols, Havana: Editorial de Ciencias Sociales, 1978.

⁷² María del Carmen Barcia, *Burguesía esclavista y abolición*, Havana: Editorial de Ciencias Sociales, 1987; Fé Iglesias García, *Del ingenio al central*, San Juan: Editorial de la Universidad de Puerto Rico, 1998.

⁷³ Oscar Zanetti & Alejandro García, *Caminos para el azúcar*, Havana: Editorial de Ciencias Sociales, 1987.

⁷⁴ Joan Casanovas, *Bread, or Bullets! Urban Labor and Spanish Colonialism in Cuba, 1850-1898*, Pittsburgh: University of Pittsburgh Press, 1998, p.67.

Transnational Networks

Sugar dominated the Cuban economy and society from the late eighteenth century, and continues to do so in the writing of the island's history. This has been both in positive terms, such as Miguel Barnet's belief that "sugar made Cuba coalesce";⁷⁵ and negatively, in the feeling that sugar dependency was the root cause of the island's problems.⁷⁶ Despite the attempts made by some to break from this monocultural dependency,⁷⁷ the two remain inextricably intertwined. Many of the most influential works of Cuban historiography start from this premise,⁷⁸ and many historians have followed their lead.⁷⁹ Dealing as it does with migrant workers who were drawn to Cuba by the cane, this thesis cannot but do the same. For all that coffee and tobacco played their part in the economic history of the island, they are inevitably overshadowed by the commodity that more than anything else tied Cuba into the global capitalist system.⁸⁰

Nation at the intersection of transnational networks

In 1955, Philip Curtin introduced the concept of a 'South Atlantic system'. He saw this as complementing and, with the abolition of the slave trade by Britain in 1807, coming to supplant the North Atlantic system of triangular trade between Europe, Africa and the Americas as the driving motor of the Atlantic economies.⁸¹ This was particularly influential, in that it looked towards the defining of a space, emerging out of complex

⁷⁵ Miguel Barnet, 'The Culture That Sugar Created', *Latin American Literary Review*, 8:16 (Spring-Summer 1980), p.38.

⁷⁶ Antonio Benítez Rojo, 'Power/Sugar/Literature: Towards a Reinterpretation of Cubanness', *Cuban Studies*, 16 (1986), pp.9-21.

⁷⁷ Outstanding are Francisco Pérez de la Riva, *El café: Historia de su cultivo y explotación en Cuba*, Havana: Jesús Montero, 1944; and Jean Stubbs, *Tabaco en la periferia: El complejo agro-industrial cubano y su movimiento obrero, 1860-1959*, Havana: Editorial de Ciencias Sociales, 1989. See also Sherry Johnson, *The Social Transformation of Eighteenth-Century Cuba*, Gainesville: University Press of Florida, 2001, which challenges the prevailing wisdom that "without sugar, there is no country" (p.1).

⁷⁸ Ramiro Guerra y Sánchez, *Azúcar y población en las Antillas*, Havana: Editorial de Ciencias Sociales, 1970 [1927]; Raúl Cepero Bonilla, *Azúcar y abolición: apuntes para una historia crítica del abolicionismo*, Havana: Editorial Cenit, 1948; Le Riverend, Julio, *Historia Económica de Cuba*, Havana: Editorial de Ciencias Sociales, 1967; Levi Marrero, *Cuba: economía y sociedad*, 12 vols., Madrid, 1973-86; and Moreno Friginals, *El Ingenio*.

⁷⁹ See, for example: Roland T. Ely, *Cuando reinaba su majestad el azúcar*, Havana: Imagen Contemporánea, 2001 [1963]; Knight, *Slave Society*; Oscar Zanetti, et al., *United Fruit Company. Un caso de dominio imperialista*, Havana: Editorial de Ciencias Sociales, 1977; Barcia, *Burguesía esclavista*; Zanetti & García, *Caminos para el azúcar*; Bergad, *Cuban Rural Society*; Anton L. Allahar, *Class, Politics, and Sugar in Colonial Cuba*, Lewiston, Queenston & Lampeter: Edwin Mellen Press, 1990; Iglesias, *Del ingenio al central*.

⁸⁰ Antonio Santamaría Garcá, *Sin azúcar no hay país: la industria azucarera y la economía cubana (1919-39)*, Sevilla: Universidad de Sevilla, 2002.

⁸¹ Philip Curtin, *Two Jamaicas: the Role of Ideas in a Tropical Colony, 1830-1865*, Cambridge, Mass: Harvard University Press, 1955, pp.4-5.

networks, which went beyond the presumptions of isolatable nations. Instead, economic, political, social and cultural developments could be seen as occurring through interconnections that, in this case, crossed the Atlantic. In 1977, Fernand Braudel took this further, suggesting the tying of the entire Western hemisphere together, defining the space not in terms of continents, but again in terms of the oceanic shared space represented by the Atlantic.⁸² Such notions have been taken up subsequently by a number of historians in the 1980s and 1990s. In 1991, a collection of articles on the economy, culture and society of the Atlantic world was edited by Franklin Knight and Peggy Liss, concentrating on the connected histories of the Atlantic port cities. As they write in their introduction:

[B]ridges connecting the various Americas have always existed. The American empires were never mutually isolated entities. The Atlantic system linked not only port cities but commerce, people, and ideas. Port towns in turn formed the junctions between the interior and the wider world. And the device once seen as preserving imperial isolation – a monopoly of trade – now appears as a spur to the contraband that was accompanied by great transcultural contact.⁸³

Immanuel Wallerstein's concept of world systems in understanding the interconnected development of the planet's economy and society has been highly influential in the theorisation of such approaches, and their extension beyond the confines of the Atlantic system.⁸⁴ He applied this analytical method to the history of the emergence of the global capitalist system, presided over by European hegemonic powers, from the first period of European expansion in the sixteenth century, up to the nineteenth century.⁸⁵ Similarly, Eric Hobsbawm has shown how economics, politics, society and culture were intertwined in the emergence of the modern world.⁸⁶ Revealing the interdependence of every part of this world system is important for our

⁸² Fernand Braudel, *Afterthoughts on Material Civilization and Capitalism*, trans. Patricia Ranun, Baltimore: Johns Hopkins University Press, 1977. Though he did not pursue this further, the suggestion was for a history of the Atlantic similar to the work he had previously done on the Mediterranean world (Fernand Braudel, *The Mediterranean, and the Mediterranean World in the Age of Philip II*, 2 vols, London: Fontana, 1975 [1949]).

⁸³ Franklin Knight & Peggy Liss (eds.), *Atlantic Port Cities: Economy, Culture and Society in the Atlantic World, 1650-1850*, Knoxville: University of Tennessee Press, 1991, p.10.

⁸⁴ Immanuel Wallerstein, *The Capitalist World Economy*, Cambridge: Cambridge University Press, 1979; Terence K. Hopkins & Immanuel Wallerstein, *World Systems Analysis, Theory and Methodology*, Beverley Hills & London: Sage, 1982.

⁸⁵ Immanuel Wallerstein, *The Modern World System*, 3 vols, New York & London: Academic Press, 1974-89.

⁸⁶ Eric Hobsbawm, *The Age of Revolution: Europe 1789-1848*, London: Weidenfeld & Nicolson, 1975; *The Age of Capital, 1848-1875*, London: Weidenfeld & Nicolson, 1962; *The Age of Empire, 1875-1914*, London: Weidenfeld & Nicolson, 1987.

understanding of how individual nations come to emerge not just as historically contingent, but within the constraints imposed by wider, transnational forces.⁸⁷

With African slavery, and other migrations, playing such a formative role in the Caribbean, such interrelationships have been at the forefront of writing the region's history. In *Capitalism and Slavery*, Eric Williams showed how there was a symbiotic relationship between development of the slave system, and its eventual decline; and of capitalism in the eighteenth and nineteenth centuries:

The commercial capitalism of the eighteenth century developed the wealth of Europe by means of slavery and monopoly. But in so doing it helped to create the industrial capitalism of the nineteenth century, which turned round and destroyed the power of commercial capitalism, slavery, and all its works.⁸⁸

Williams subsequently extended this argument beyond the economic determinism of his earlier work, describing the “five heads” of abolition: economic, political, humanitarian agitation, international and intercolonial rivalry, and social factors.⁸⁹ This was developed by Seymour Drescher, who asserted the need to look at the complex of factors out of which the history of slavery and its abolition were constructed.⁹⁰ As Robert Fogel, writing on the rise and fall of North American slavery, said: “economic, cultural, ideological, and political aspects of slavery have to be viewed in an integrated way”.⁹¹ Robin Blackburn has developed such a perspective, concentrating particularly upon asserting the role of human agency both in the development of slavery in the Americas,⁹² and in its demise in the nineteenth century.⁹³

Despite the tendency for Cuban historiography to focus upon the developing national project, this has generally been done within an implicitly transnational

⁸⁷ Eric Hobsbawm, *Nations and Nationalism since 1780: Programme, Myth, Reality*, Cambridge: Cambridge University Press, 1990. Similarly Tom Nauerby, in his study of the Faroe Islands, has argued for an integrated and interactive idea of national identity: “we do not become aware of our own culture until we meet and interact with others” (*No Nation is an Island: Language, Culture, and National Identity in the Faroe Islands*, Aarhus: Aarhus University Press, 1996, p.6).

⁸⁸ Eric Williams, *Capitalism and Slavery*, London: Andre Deutsch, 1964 [1940], p.210.

⁸⁹ Eric Williams, *From Columbus to Castro: The History of the Caribbean, 1492-1969*, London: Andre Deutsch, 1970.

⁹⁰ Seymour Drescher, *Econocide: British Slavery in the Era of Abolition*, Pittsburgh: University of Pittsburgh Press, 1977. This came out of a critique of the Williams economic determinacy position.

⁹¹ Robert William Fogel, *Without Consent or Contract: The Rise and Fall of American Slavery*, New York: W. W. Norton & Company, 1989, p.11.

⁹² Robin Blackburn, *The Making of New World Slavery: From the Baroque to the Modern, 1492-1800*, London: Verso, 1997.

⁹³ Robin Blackburn, *The Overthrow of Colonial Slavery, 1776-1848*, London: Verso, 1988.

context. Herminio Portell Vilá explored how Cuba's history was tied up in its relations with the two conflicting metropolitan powers: the United States and Spain;⁹⁴ and most historians have likewise seen how the nation emerged not in isolation, but in reaction to competing imperial designs over the island.⁹⁵ Others have focused on the economic aspects. Ramiro Guerra analysed Cuba's dependency on sugar, and its impact on the island's society, within a wider Caribbean and Atlantic perspective.⁹⁶ This importance of economic imperialism in defining the island's history has formed the context for more recent works, such as Zanetti's study of the role played by a foreign corporation in Cuba's sugar industry;⁹⁷ and Jean Stubbs's analysis of the Cuban agro-industrial complex through the history of tobacco.⁹⁸ José Benítez went further, looking beyond the national boundaries to take a regional approach to the relationship between migration, sugar production and Atlantic imperialism.⁹⁹ Likewise combining politics, society and the economy was Luis Martínez-Fernández's *Torn Between Empires*, in which the geo-political rivalries of the Atlantic powers provides the context for understanding the history not just of Cuba, but of the Spanish Caribbean as a whole in the nineteenth century.¹⁰⁰

Migration from a transnational perspective

This thesis is primarily concerned with the history of a group of people who were largely forgotten about in historical accounts of the period. Although some research has occurred in Cuba in recent years into the historical contribution made by such people without history,¹⁰¹ there continues to be a shortage of research into the role

⁹⁴ Herminio Portell Vilá, *Historia de Cuba en sus relaciones con los Estados Unidos y España*, 4 vols., Havana: Jesús Montero, 1938-41.

⁹⁵ See, for example: Jorge Ibarra, *Nación y cultura nacional*, Havana: Editorial Letras Cubanas, 1981; and Manuel Moreno Fraguinals, *Cuba/España; España/Cuba*, Barcelona: Crítica, 1995. Christopher Schmidt-Nowara has shown how political and cultural developments in Cuba were closely tied to those in Spain, and vice versa, in particular looking at the development of the anti-slavery movement in both countries (*Empire and Antislavery: Spain, Cuba, and Puerto Rico, 1833-1874*, Pittsburgh: University of Pittsburgh Press, 1999).

⁹⁶ Guerra, *Azúcar y población*.

⁹⁷ Zanetti, *et al.*, *United Fruit Company*.

⁹⁸ Stubbs, *Tobaco en la periferia*.

⁹⁹ José Benítez, *Las Antillas: colonización, azúcar e imperialismo*, Havana: Casa de las Américas, 1977.

¹⁰⁰ Luis Martínez-Fernández, *Torn Between Empires: Economy, Society and Patterns of Political Thought in the Hispanic Caribbean, 1840-1878*, Athens & London: University of Georgia Press, 1994. I have also argued that we should see the Cuban nation emerging in the interstices of transnational networks (Jonathan Curry-Machado, 'Beneath and Beyond the Nation: Cuba at the Interstices of Nineteenth Century Transnational Networks', paper given at 'Beneath and Beyond the Nation' workshop, Institute of Latin American Studies, London, 13th June 2003.

¹⁰¹ Pedro Deschamps Chapeaux & Juan Pérez de la Riva, *Contribución a la historia de la gente sin historia*, Havana: Editorial de Ciencias Sociales, 1974.

played by such anonymous social actors in the nineteenth century.¹⁰² Even Cuban slavery has received little more than piecemeal attention.¹⁰³ Of particular importance is the history of migrants, without whom the transnational networks could not have been propagated. If the Cuban nation emerged in the context of imperial conflicts and domination, sugar dependency, and international trade routes, it was constructed by the humans who settled the island in various ways.¹⁰⁴ Within Cuban historiography, most attention has been given to the Spanish¹⁰⁵ and Chinese,¹⁰⁶ with only a few studies, limited to journal articles, dealing with other nationalities.¹⁰⁷

“The movement of groups of people from one locale to another has been a constant of human experience”;¹⁰⁸ and from the earliest times, humanity has been a wandering species, extending itself across the planet in migratory waves: sometimes free, at other times coerced, as with the Atlantic slave trade which brought as many as thirteen million Africans to the Americas.¹⁰⁹ The pace of this movement accelerated in

¹⁰² Pedro Deschamps and Juan Pérez de la Riva are important exceptions to this. See Deschamps, *El negro*; Pedro Deschamps Chapeaux, *Los cimarrones urbanos*, Havana: Editorial de Ciencias Sociales, 1983; Juan Pérez de la Riva, *El barracón y otros ensayos*, Havana: Editorial de Ciencias Sociales, 1975. See also E. Torres-Cuevas & E. Reyes, *Esclavitud y sociedad: notas y documentos para la historia de la esclavitud negra en Cuba*, Havana: Editorial de Ciencias Sociales, 1986.

¹⁰³ Fé Iglesias, ‘Historiography of Cuba’, in B. W. Higman, *General History of the Caribbean. Vol. VI – Methodology and Historiography of the Caribbean*, London & Oxford: UNESCO/Macmillan, 1999. Of the few exceptions stand out: Barcia, *Burguesía esclavista*; and Julio Le Riverend, *et al.*, *Temas acerca de la esclavitud*, Havana: Editorial de Ciencias Sociales, 1988. See also José Luciano Franco, *Ensayos Históricos*, Havana: Editorial de Ciencias Sociales, 1974.

¹⁰⁴ Fernando Ortiz, *Los factores humanos de la cubanidad*, Havana: Molina, 1940; D. C. Corbitt, ‘Immigration in Cuba’, *Hispanic American Historical Review*, Vol. 22:2, (1942), pp.240-308; Juan Pérez de la Riva, *Los demógrafos de la dependencia*, Havana: Editorial de Ciencias Sociales, 1979; Sergio Valdés Bernal, ‘La inmigración en Cuba: estudio lingüístico-histórico’, *Anales del Caribe*, (1987-88), pp.220-39; P. Tornero, ‘Inequality and Racism: Demography and Society in Cuba in the Late Nineteenth Century’, *Revista de Indias*, 57:212 (January – April 1998), pp.25-46.

¹⁰⁵ For example, Jordi Maluquer de Motes, *Nación e inmigración: los españoles en Cuba (ss.XIX y XX)*, Asturias: Ediciones Jucar, 1992; and Consuelo Naranjo Orovio & Armando García González, *Racismo e inmigración en Cuba en el siglo XIX*, Madrid: Doce Calles, 1993.

¹⁰⁶ Duvon Corbitt, *A Study of the Chinese in Cuba, 1847-1947*, Wilmore, Ky: Ashbury College, 1971.

¹⁰⁷ On the Germans: Bohumil Badura, ‘Sobre la inmigración alemana en Cuba durante la primera mitad del siglo XIX’, *Ibero-Americana Pragensia*, Yrs. 9 & 10 (1975 & 76), pp.71-105 & pp.111-36. On the French: Rafael Duharte Jiménez, ‘La huella de la emigración francesa en Santiago de Cuba’, *Del Caribe*, 10, 1987; and William R. Lux, ‘French colonization in Cuba, 1791-1809’, *The Americas*, 29:1 (1972), pp.57-61. On the British and Irish: Curry-Machado, *Running from Albion*.

¹⁰⁸ W. M. Spellman, *The Global Community: Migration and the Making of the Modern World*, Stroud: Sutton Publishing, 2002, p.1.

¹⁰⁹ See Vincent Bakpetu Thompson, *The Making of the African Diaspora in the Americas, 1441-1900*, Harlow: Longman, 1977; Joseph Inkori & Stanley L. Engerman (eds.), *The Atlantic Slave Trade: Effects on Economies, Societies and Peoples in Africa, the Americas, and Europe*, Durham, NC: Duke University Press, 1991; Hugh Thomas, *The Slave Trade: The History of the Atlantic Slave Trade, 1440-1870*, London: Picador, 1997, pp.805-6. There can be no certainty in the figure. Philip Curtin placed the total around 9.5 million (*The Atlantic Slave Trade: A Census*, Madison: University of Wisconsin Press, 1970),

the nineteenth century, with the advent of mass voluntary migrations, above all from Europe.¹¹⁰

Most histories that deal with migrant groups do so within a framework of unquestioned national categories and assumptions. There is a strong tendency to presume uncritically that all those originating in one defined country and settling in another have a certain shared history, or even community of experience and identity. This originates from the essentially bipolar definition that is taken in framing the research. Hence Patrick McKenna studies the Irish in Argentina;¹¹¹ and Barbara Tenenbaum concentrates on the British in Mexico.¹¹² It is not so much that such approaches are necessarily wrong, since there are many examples in which clearly defined national migrant groups have existed, at times as enclaves in the host country.¹¹³ But such histories, far from being the norm, may well have been exceptions to a more common experience of migration in which, simply because migrants may have originated in the same country, they did not automatically have a shared identity, or community of interests, in their country of settlement. By defining migration as emigration from a specific country, and immigration into another, there is a danger of falling into national essentialism. Yet, as many people who have themselves migrated will be aware, national identity becomes deeply problematised by the experience.

and others have placed the figure somewhat lower (Paul Lovejoy calculated a total of just under 8 million African slaves reaching the Americas during the eighteenth and nineteenth centuries, in 'The Volume of the Atlantic Slave Trade: A Synthesis', *Journal of African History*, 23 (1982), p.497). However, the most recent estimates suggest that the total was considerably higher (David Eltis *et al.* (eds.), *The Transatlantic Slave Trade Database on CD-ROM*, Cambridge & New York: Cambridge University Press, 1999; and David Eltis, 'The Volume and Structure of the Transatlantic Slave Trade: A Reassessment', *The William and Mary Quarterly*, 58:1 (January 2001). For a comprehensive view of world migration in general, across and within the continents, see Robin Cohen (ed.), *The Cambridge Survey of World Migration*, Cambridge: Cambridge University Press, 1995; and David Eltis (ed.), *Coerced and Free Migration: Global Perspective*, Stanford: Stanford University Press, 2002.

¹¹⁰ Dudley Baines, *Emigration from Europe, 1815-1930*, Basingstoke: Macmillan, 1991.

¹¹¹ Patrick McKenna, 'The Formation of Hiberno-Argentine Society', in Oliver Marshall (ed.), *English-speaking Communities in Latin America*, London: Institute of Latin American Studies, 2000, pp.81-104; 'Irish Migration to Argentina', in Patrick O'Sullivan (ed.), *The Irish World Wide: History, Heritage, Identity, Vol.1: Patterns of Migration*, Leicester: Leicester University Press, 1992, pp.63-83.

¹¹² Barbara Tenenbaum, 'Merchants, Money and Mischief: The British in Mexico, 1821 to 1862', *The Americas*, 35 (1979), pp.317-39; and Barbara A. Tenenbaum & James N. McElveen, 'From Speculative to Substantive Boom: The British in Mexico, 1821-1911', in Marshall, *English-speaking Communities*, pp.51-80.

¹¹³ For example, Glyn Williams, *The Welsh in Patagonia: The State and the Ethnic Community*, Cardiff: University of Wales Press, 1991.

Previously held national or ethnic identities are lost or distorted, and new ones adopted or invented.¹¹⁴

It has partly been this need to have a more complex understanding of the workings of migrant identity that has seen the development of new areas of historical and cultural research based on diasporic groups. As a concept, this originates in Jewish historiography,¹¹⁵ but in recent years has come to be applied influentially to an African diaspora (brought about by slavery),¹¹⁶ and an Irish diaspora (largely brought about by poverty).¹¹⁷ These are an improvement upon the more traditional nation-based approaches, in that, while the point of origin continues to be shared, the destination becomes complex and more open-ended. This is particularly so in the case of the Atlantic world, in which African forced migration was defining for the entire hemisphere, and famously formed one side of the triangular commercial system that tied together Europe, Africa and the Americas.¹¹⁸ However, the diasporic model is also problematic. There is a tendency towards the privileging of the history of the diasporic group to the exclusion of others. Far from challenging national (or ethnic) essentialism, diasporic histories continue to maintain, and even strengthen, such assumptions. Although recognition may be given to the complexities of class, gender and race, and even to the shared and conflicting histories of different diasporas, this is necessarily set within the bounds given by the national (or ethnic) definition.¹¹⁹

¹¹⁴ This is at the heart of notions of hybridity, in which migration leads to the formation of multiple identities, and a sense of inbetweenness and the possibility for self-rearticulation on the part of the migrant. See, for instance, Homi Bhabha, *Nation and Narration: The Location of Culture*, New York: Routledge, 1994.

¹¹⁵ See, for instance: H. Frederic, *The New Exodus: A Study of Israel in Europe*, New York: Arno Press, 1970; J. Wertheimer, *Unwelcome Strangers: East European Jews in Imperial Germany*, New York: Oxford University Press, 1987; J. Frankel & S. Zipperstein (eds.), *Assimilation and Community: the Jews in Nineteenth Century Europe*, Cambridge: Cambridge University Press, 1992.

¹¹⁶ See, for instance: G. W. Irwin (ed.), *Africans Abroad: A Documentary History of the Black Diaspora in Asia, Latin America and the Caribbean During the Age of Slavery*, New York: Columbia University Press, 1977; Thompson, *The Making of the African Diaspora*; Aubrey W. Bonnet & C. Llewellyn Watson (eds.), *Emerging Perspectives on the Black Diaspora*, Lanham, MD: University Press of America, 1990; Paul E. Lovejoy (ed.), *Identity in the Shadow of Slavery*, London & New York: Continuum, 2000.

¹¹⁷ See, for instance: Kerby Miller, *Emigrants and Exiles: Ireland and the Irish Exodus to North America*, New York: Oxford University Press, 1985.

¹¹⁸ See for example: Paul Butel, *The Atlantic*, London & New York: Routledge, 1999; Philip D. Curtin, *The Rise and Fall of the Plantation Complex: Essays in Atlantic History*, Cambridge: Cambridge University Press, 1990.

¹¹⁹ For example, the Irish and African diasporas in North America, as in Noel Ignatiev, *How the Irish became White*, New York & London: Routledge, 1995.

Paul Gilroy writes that we should “take the Atlantic as one single, complex unit of analysis... and use it to produce an explicitly transnational and intercultural perspective”.¹²⁰ While this is no more than had already been suggested by the earlier historians of Atlantic commerce and political economy, what makes Gilroy’s work distinct is that it opens this up to social and cultural history, though he does so in a racially-defined way. Stressing the importance of shifting our perception of identity from one that is tied to “roots and rootedness” to “a process of movement and mediation”, he lays the foundations for the writing of migration history (and social history in general) fully released from the constraints of national preconceptions. Gilroy presents the example of the protagonist from Martin Delany’s novel, *Blake*: a black Cuban who travels to Africa as a sailor on a slave ship, is later enslaved in the United States, succeeds in escaping to Canada, returns to find his wife, only to discover her in Cuba. He promptly frees her, and then takes part in a planned slave uprising.¹²¹ Through this fictional life history, Delany reveals an Atlantic world, created by a variety of migration paths, in which the experience and identity of migrants is not defined in simple national terms. Individuals cease to be identified as belonging to particular localised spaces (whether of departure or arrival).¹²² It is the movement, whether geographical, social or cultural, that provides such definition as can be given them, and as such these definitions are highly fluid, leading to complex inter-relationships and communities that cannot be reduced, any more than can the individual, to simple labels of nation, class, gender or race. It is, rather, in the interstices between such categories, and the complex tensions generated between them, that identities, inevitably fluid, are to be found.

This is something that has recently been taken up by Peter Linebaugh and Marcus Rediker. They take Gilroy’s concept of the mobile Atlantic, and extend it into a racially-diverse history of the Atlantic proletariat, which they define in the following inclusive and colourful terms:

anonymous, nameless ...landless, expropriated, ...poor, ...mobile, transatlantic, ...terrorized, subject to coercion, ...female and male, of all ages, ...multitudinous, numerous, and growing, ...numbered, weighed, and measured, ...cooperative and laboring, ...motley, both dressed in rags and multi-ethnic in appearance. Like Caliban, it

¹²⁰ Paul Gilroy, *The Black Atlantic: Modernity and Double Consciousness*, London: Verso, 1993, p.15.

¹²¹ Martin Delany, *Blake; or, The Huts of America*, Boston: Beacon Press, 1970 [1859].

¹²² Gilroy, *Black Atlantic*, pp.27-9.

originated in Europe, Africa, and America.... It was vulgar... It was planetary, ...self-active, creative....¹²³

The implication of Gilroy's, and Linebaugh and Rediker's work is that we need to have a transnational perspective on human movement. Nina Glick Schiller, Linda Basch and Cristina Szanton Blanc argue that with the transcendence of the nation state by globalised capitalism, "transmigrants" play an important role in the defining of political, social and economic life, and in establishing a "transnational social field" that joins their homelands with the countries in which they settle.¹²⁴ As Mary Chamberlain shows, the Caribbean diaspora was articulated by migrants in this way, with received images and preserved memories, along with transnationalised family networks, providing an important dynamic for both outward migration and eventual return.¹²⁵ Others have demonstrated the interconnectedness between transnational migration and other networks, political and economic. For example, Ramón Grosfoguel has looked at the transnational networks coming out of the colonial relationship between Europe and the Caribbean, in which migrants have been important agents.¹²⁶ With Héctor Cordero-Gúzman he has recently argued for an approach that places migration within the interconnected social, political and economic history of the countries of origin and reception.¹²⁷ Such perspectives have become important in the analysis of contemporary migrant identity, interaction and influence.¹²⁸

¹²³ Peter Linebaugh & Marcus Rediker, *The Many-Headed Hydra: the Hidden History of the Revolutionary Atlantic*, London: Verso, 2000, pp.332-3.

¹²⁴ Nina Glick Schiller, Linda Basch & Cristina Blanc-Szanton, *Towards a Transnational Perspective on Migration*, New York: New York Academy of Sciences, 1992; Linda Basch, Nina Glick Schiller & Cristina Szanton Blanc, *Nations Unbound: Transnational Projects, Postcolonial Predicaments, and Deterritorialized Nation States*, Langhorne, Pa.: Gordon & Breach, 1994.

¹²⁵ Mary Chamberlain, *Narratives of Exile and Return*, London & Basingstoke: Macmillan, 1997. See also Mary Chamberlain (ed.), *Caribbean Migration, Globalised Identities*, London: Routledge, 1998; and *Caribbean Families in Britain and the Trans-Atlantic World*, London & Oxford: Macmillan, 2001. A similar approach is taken, looking at Haitian migrants in the United States, by Nina Glick Schiller & Georges E. Fournon, *George Woke Up Laughing: Long-Distance Nationalism and the Search for Home*, Durham: Duke University Press, 2001.

¹²⁶ Ramón Grosfoguel, 'Colonial Caribbean Migrations to France, The Netherlands, Great Britain, and the United States', *Ethnic and Racial Studies*, 20:3 (1997), pp.594-612.

¹²⁷ Ramón Grosfoguel & Héctor Cordero-Gúzman, 'Social Capital, Context of Reception, and Transnationalism: Recent Approaches to International Migration', *Diaspora* 7:3 (1998), pp.351-68; Héctor Cordero-Gúzman & Ramón Grosfoguel, 'The Demographic and Socio-economic Characteristics of Post-1965 Immigrants to New York City: A Comparative Analysis by National Origin', *International Migration*, 38:4 (2000), pp.41-79.

¹²⁸ One recent collection, looking at the transnational contribution of migrants to the development of New York City, and their changing identities, is Héctor R. Cordero-Guzmán, Robert C. Smith & Ramón Grosfoguel (eds.), *Migration, Transnationalization, & Race in a Changing New York*, Philadelphia: Temple University Press, 2001.

Nevertheless, the underlying premise continues to be that of departure from a readily identifiable country of origin, and arrival at another. The transnationalism they refer to appears limited to their experience in the host society. Thus Chris Julios studies the Puerto Ricans in the United States, showing how “a new kind of ‘transnational’ identity” emerges amongst second-generation migrants.¹²⁹ But other research would suggest a need to look beneath the national frontiers, at how the world has been shaped through a history of movement by people who do not consider themselves to be constrained, nor primarily defined, by the accident of their geographical origins. Julius Scott has shown how the Caribbean has always been a site of popular migrations, “confounding the image of well-controlled colonies with well-defined national boundaries”.¹³⁰ Jonathan Hyslop, writing on migrant engineering workers in South Africa in the late nineteenth and early twentieth centuries, suggests the need to define a migrant working class that transcended national constraints in the company of the expanding British Empire:

[T]he white working classes in the pre-First World War British Empire were not composed of ‘nationally’ discrete entities, but were bound together into an imperial working class, by flows of population which traversed the world.¹³¹

Along with the national assumptions of arrival and departure, much work on migration is premised on the disjuncture that this entailed for those involved. However, through the exploration of the myriad of interconnecting networks of human relations that define all migratory experiences, it can be shown that migration was also a form of continuity.¹³² Gulati, studying women left behind by migrant workers in India, shows the importance of the connections maintained between migrants and their

¹²⁹ Chris Julios, ‘Bilingualism and the Construction of a New ‘American’ Identity’, in Anne J. Kershen (ed.), *A Question of Identity*, Aldershot: Ashgate, 1998, pp.271-93.

¹³⁰ Julius A. Scott, ‘Crisscrossing Empires: Ships, Sailors, and Resistance in the Lesser Antilles in the Eighteenth Century’, in Robert L. Paquette & Stanley L. Engerman (eds.), *The Lesser Antilles in the Age of European Expansion*, Gainesville: University Press of Florida, 1996, p.129.

¹³¹ Jonathan Hyslop, ‘The Imperial Working Class Makes Itself ‘White’: White Labourism in Britain, Australia and South Africa before the First World War’, *Journal of Historical Sociology*, 12:4 (1999), pp.398-421. I would argue that the example of the *maquinistas* in Cuba shows the need to extend Hyslop’s concept further: not only since Empire was itself not confined by its political forms, but extended itself through economic and technological networks; but also because, for all the geo-political rivalries, international domination occurred across the boundaries of individual imperial projects, and migrants from different national backgrounds found themselves thrown together in the process.

¹³² Chamberlain, *Narratives of Exile; Caribbean Migration; and Caribbean Families*.

families back home.¹³³ Others have suggested that it is not even spatial movement itself that is important about migration, perverse as that might seem. For example, Robert Miles looks at the change in position within the relations of production undergone by migrants.¹³⁴ Migration should perhaps be seen more as a continuity, in which similarity and familiarity may be as important as difference. Thus Andreas Demuth suggests a framework for studying migration in which four stages (starting, migration, arrival and sojourn) are not seen as separate, but with each occurring in the context of the other three.¹³⁵

Some recent writers have attempted to retheorize the migratory experience in such an inclusive fashion, in which our attention is refocused to permit previously ignored processes to be examined, with migration being seen in terms of multiple and interlacing transnational networks.¹³⁶ Monica Boyd has shown the continuing importance for migration not just of family and kinship networks, but also of social networks in general, though these need to be seen in conjunction with other networks that “connect migrants and non-migrants across time and space”:

Such approaches force attention on stability and movement in both sending and receiving areas, examine flows within the context of other flows, and emphasize that flows of people are part of, and often influenced by, flows of goods, services and information.¹³⁷

Arjun Appadurai points towards a global cultural economy, made up of five different types of imagined world landscapes: capital networks, state and counter ideologies, media, technology and migration. Together these traverse the borders of the nation-state, and it becomes possible to reflect on the transnational formation of communities through the interacting networks. In this context, migration plays a very important part, not because everyone migrates, but almost everybody knows someone who has.¹³⁸

¹³³ L. Gulati, *In the Absence of their Men*, New Delhi: Sage, 1993.

¹³⁴ Robert Miles, *Capitalism and Unfree Labour: Anomaly or Necessity?* London: Tavistock Publications, 1987.

¹³⁵ Andreas Demuth, ‘Some Conceptual Thoughts on Migration Research’, in Biko Agozino (ed.), *Theoretical and Methodological Issues in Migration Research: interdisciplinary, intergenerational and international perspectives*, Aldergate: Ashgate, 2000, pp.21-58. Such multi-causality, or ‘overdetermination’, is more generally theorised by Louis Althusser (‘Contradiction and Overdetermination: Notes for an Investigation’, in *For Marx*, New York: Vintage Books, 1970).

¹³⁶ Nade Al-Ali & Khalid Koser, *New approaches to migration? Transnational communities and the transformation of home*, London: Routledge, 2002.

¹³⁷ Monica Boyd, ‘Family and Personal Networks in International Migration: recent developments and new agendas’, *International Migration Review*, 13:3 (1989), p.641.

¹³⁸ Arjun Appadurai, ‘Disjuncture and Difference in the Global Cultural Economy’, in Jana Evans Braziel & Anita Mannur (eds.), *Theorizing Diaspora*, Oxford: Blackwell, 2003, pp.25-48. Most studies

Technology transfer

In the case of the *maquinistas* in Cuba, whatever other points of contact may have facilitated their migration into the island, it was their special relationship with technology that provided the most important and visible connection with the transnational networks. It was because of the importation of new machinery that they entered Cuba, and their involvement in the island was largely defined by this role. Josefina Plá has found that in Paraguay, where most British migrants in the mid-nineteenth century were related to engineering, the same held true.¹³⁹

Most histories of technological development, and transfer of this technology around the world, are relatively blind to the importance of such skilled workers in bringing this about – as has been seen in the overlooking of the *maquinistas* in Cuban historiography, even where close attention is paid to the introduction of machinery. David Jeremy has done much to attempt to redress this, by showing the influence played by British migrant mechanics in the reshaping of technology in New England, above all in the textile industry.¹⁴⁰ “By far the most important vehicle of technology transfer in the early industrial period,” he writes, “were skilled workers”:

They were vital in the early stages of technology transfer because they had mental and manual knowledge/skill and because they were able to interact with the technological system on the one hand, with the natural and cultural environment of the receptor society on the other hand, and so make the multitude of adjustments that were necessary in accommodating a new technological system to fresh, cross-cultural surroundings.¹⁴¹

Cuban historiography has not concerned itself with the impact that migrant workers had upon technology transfer, but the industrial development that this

of transnationalism are written in the contemporary context of globalised capitalism. It is seen as a recent phenomenon, in which “people are in movement all over the world”, in a context in which “globalised networks now characterise modern societies at all social levels” (Floya Anthias & Cathie Lloyd, ‘Introduction: Fighting racisms, defining the territory’, in Floya Anthias & Cathie Lloyd (eds.), *Rethinking Anti-racisms: From theory to practice*, London & New York: Routledge, 2002, p.2). An important argument of this thesis is that the globalisation of capitalism is not just of recent occurrence, but has been present throughout its history, and with it the transnational movement and identity of people. On this, see Sidney W. Mintz, ‘The Localization of Anthropological Practice: From Area Studies to Transnationalism’, *Critique of Anthropology*, 18:2 (1998), pp.117-33.

¹³⁹ Josefina Plá, *The British in Paraguay, 1850-1870*, Richmond: Richmond Publishing Co., 1976.

¹⁴⁰ David J. Jeremy, *Transatlantic Industrial Revolution: the diffusion of textile technologies between Britain and America, 1790-1830s*, Cambridge, Mass.: MIT Press, 1981.

¹⁴¹ David J. Jeremy, *Artisans, Entrepreneurs and Machines*, Aldershot: Ashgate, 1998, p.19.

entailed has been seen as fundamental to one of the most important features of nineteenth century Cuban history: the ending of slavery. Following on from the earlier work of Raúl Cepero Bonilla,¹⁴² Moreno Friginals argued that slavery collapsed due to the development of the forces of production to a point at which further development could no longer be sustained whilst slavery remained. Thus the relations of production, finding themselves in contradiction with the forces, necessarily changed – so bringing abolition of slavery and the move towards wage labour.¹⁴³ This position has subsequently been challenged. Laird Bergad demonstrated that far from slavery collapsing for technological and economic reasons, it continued to be more economically advantageous than free labour in the sugar plantations right up to emancipation.¹⁴⁴ At the same time, others have shown how economic causes combined with complex social and political forces to bring an eventual end to slavery. In particular, the role of the slaves themselves in resisting their captivity has been explored.¹⁴⁵ The *maquinistas*, contracted at a premium to work in the rapidly industrialising Cuban sugar mills of the mid-nineteenth century, were living proof of how slavery and technological development were not incompatible, and experienced first hand the social tensions that ultimately made this connection untenable.

Identity, Interaction and Influence

It is necessary to understand more explicitly the processes by which the encounter between migrants and a host society occurs, and the ways in which these not only interact, but the one either becomes integrated into the other, or else becomes defined by its exclusion. Mary Louise Pratt sees engagement occurring in ‘contact zones’, or “the space in which peoples geographically and historically separated come into contact with each other and establish ongoing relations”:

A ‘contact’ perspective emphasizes how subjects are constituted in and by their relations to each other. It treats the relations among

¹⁴² Cepero, *Azúcar y abolición*.

¹⁴³ Moreno, *El Ingenio*. This position was taken as read for some time by many historians, Cuban or otherwise. See, for example: Fé Iglesias García, ‘The Development of Capitalism in Cuban Sugar Production, 1860-1900’, in Manuel Moreno Friginals, Frank Moya Pons, and Stanley L. Engerman (eds.), *Between Slavery and Free Labor*, Baltimore: Johns Hopkins University Press, 1985, pp. 54-76; and Knight, *Slave Society*.

¹⁴⁴ Bergad, *Cuban Rural Society*, p.225. Also, Laird W. Bergad, ‘The Economic Viability of Sugar Production Based on Slave Labor in Cuba: 1859-1878’, *Latin American Research Review*, 24:1, 1989, pp. 95-113; and Laird W. Bergad, Fé Iglesias García & María del Carmen Barcia, *The Cuban Slave Market, 1790-1880*, Cambridge: Cambridge University Press, 1995.

¹⁴⁵ See, for example, Rebecca J. Scott, *Slave Emancipation in Cuba: The Transition to Free Labor, 1860-1899*, Princeton, NJ: Princeton University Press, 1985.

colonizers and colonized, or travellers and 'travelees', not in terms of separateness or apartheid, but in terms of copresence, interaction, interlocking understandings and practices.

While such a perspective clearly fits into a transnational one, its use is limited. There is a contradiction between the apparently democratic engagement it suggests between different peoples, and the "conditions of coercion, radical inequality, and intractable conflict" that it is in fact being applied to.¹⁴⁶ What is lacking is a real sense of the social divisions and conflicts, which, for all that there is common ground to be found, generally characterize the migration experience. What is needed is a more dialectical approach, which, as Nigel Bolland has argued, "provides the most appropriate framework for Caribbean social history because it places power and conflict at the centre of the analysis".¹⁴⁷

One approach to this that has been particularly influential in Caribbean history has been the idea of 'creolisation':

A process of contention between people who are members of social formations and carriers of cultures, a process in which their own ethnicity is continually examined and redefined in terms of the relevant oppositions between different social formations at various historical moments.¹⁴⁸

It was Edward Braithwaite who first introduced the concept, in his study of the process by which a distinct, though complex, Creole society developed in Jamaica in the latter half of the eighteenth century.¹⁴⁹ It has since been found to be particularly useful in the Anglophone Caribbean for analysing the ways in which different ethnic groups have come together – in the contexts of slavery and post-slavery, of colonialism and post-colonialism – to form societies in which a national identity paradoxically develops out of their divisions and conflicts. Migration has always played a vital part in this, and in fact itself "became one of the foundations of creole identity".¹⁵⁰ This was through "the

¹⁴⁶ Mary Louise Pratt, *Imperial Eyes: Travel Writing and Transculturation*, London & New York: Routledge, 1992, pp.6-7.

¹⁴⁷ O. Nigel Bolland, *Colonialism and Resistance in Belize: Essays in historical sociology*, Benque Viejo del Carmen, Belize: Cubola Publications, 1988, p.8.

¹⁴⁸ O. Nigel Bolland, 'Creolisation and Creole Societies: a cultural nationalist view of Caribbean social history', in A. Hennessy (ed.), *Intellectuals in the twentieth century Caribbean*, Vol.1, London: Macmillan, 1992.

¹⁴⁹ Edward Braithwaite, *The Development of Creole Society in Jamaica, 1770-1820*, Oxford: Clarendon Press, 1971.

¹⁵⁰ Philip Nanton, 'Caribbean Identities and the British Context: Creolisation as a common framework', in Kershen, *Question of Identity*, p.188. For a collection that shows the range and depth of research written from a creolisation perspective, see Verene A. Shepherd & Glen L. Richards,

creation and construction of culture out of fragmented, violent and disjunct pasts” as the region became formed out of the influx of a multitude of different peoples.¹⁵¹

A different conceptualisation of this process, though in many respects similar to creolisation, has been influential in the Hispanic Caribbean. The Cuban anthropologist, Fernando Ortiz, described a process of national formation through successive migrations:

In Cuba the terms Ciboney, Taino, Spaniard, Jew, English, French, Anglo-American, Negro, Yucatec, Chinese, and Creole do not mean merely the different elements that go into the make-up of the Cuban nation, as expressed by their different indications of origin. Each of these has come to mean in addition the synthetic and historic appellation of one of the various economies and cultures that have existed in Cuba successively and even simultaneously, at times giving rise to the most terrible clashes.¹⁵²

The important point of transculturation was that it did not entail the assimilation of migrants into a host society through their adoption of the established culture. It was a dynamic, dialectical process, by which they underwent change as a result of their experience, while at the same time bringing changes to the society in which they now found themselves.¹⁵³ Through this reciprocal dialectical process, historical progress occurs, and societies and cultures develop. This has been observed by others studying migrant populations, and seeking to understand the effect that the migration experience has upon those who undergo it:

When international migration occurs the socio-cultural and linguistic continuum is broken and agents are likely to change the meanings associated with their identity.¹⁵⁴

Intersectional Identities

Creolisation and transculturation show both how societies are formed, and individual identities moulded, out of the complex interaction between individuals and groups.

Questioning Creole: Creolisation Discourses in Caribbean Culture, Kingston & Oxford: Ian Randle & James Currey, 2002.

¹⁵¹ Sidney W. Mintz, 'Enduring Substances, Trying Theories: The Caribbean Region as *Oikoumenē*', *Journal of the Royal Anthropological Institute*, 2:2 (1996), p.302.

¹⁵² Fernando Ortiz, *Cuban Counterpoint: Tobacco and Sugar*, Durham & London: Duke University Press, 1995.

¹⁵³ Fernando Ortiz, *Contrapunteo Cubano del Tabaco y el Azúcar*, Santa Clara: Universidad de las Villas, 1963; Fernando Coronil, 'Transculturation and the Politics of Theory: Countering the Center, Cuban Counterpoint', introduction to Ortiz, *Cuban Counterpoint*; Pratt, *Imperial Eyes*.

¹⁵⁴ Ana Bravo Moreno, *Gender, Migration and Identity: Spanish Migrant Women in London*, PhD Thesis, University of London, 1999, p.48.

This necessitates taking an approach that goes beyond the privileging of single categories of social identity, towards an understanding of the ways in which different categories intersect in our definition of ourselves and of others. This has proven difficult to achieve, and movement towards a fully intersectional approach has slowly been developing since the 1970s. This partly came in reaction to the middle class bias of much feminist thinking and masculine dominance of traditional class-based theories;¹⁵⁵ and the need for a more complex understanding of the nature of female oppression.¹⁵⁶ As a result, steps were made in attempting a fully grounded, materialist understanding of how class and gender interacted with one another.¹⁵⁷ This has been influential in Caribbean scholarship;¹⁵⁸ and Jean Stubbs has developed such themes in the Cuban rural and urban sectors, in particular as seen in the tobacco industry.¹⁵⁹

At the same time, similar moves were being made between race and class.¹⁶⁰ In the 1970s, John Rex examined the multiplicity of classes and class conflict situations, within the context of racial and ethnic complexity.¹⁶¹ Similar attempts were made by Robert Miles to reconcile race and ethnicity with Marxism, though in the end he never escaped from an underlying class reductionism, seeing race, ethnicity and nation as essentially ideological constructs, and therefore to be rejected as useful analytical

¹⁵⁵ Pat Armstrong and Hugh Armstrong, 'Beyond Sexless Class and Classless Sex: Towards Feminist Marxism', in R. Hamilton & M. Barrett (eds.), *The Politics of Diversity: Feminism, Marxism and Nationalism*, Montreal: Book Centre, 1986, pp.208-40.

¹⁵⁶ Michele Barrett, *Women's Oppression Today*, London: Verso, 1980.

¹⁵⁷ Heather Jon Maroney and Meg Luxton (eds.), *Feminism and Political Economy*, Toronto: Methuen, 1987.

¹⁵⁸ See, for example: Patricia Mohammed & Catherine Shepherd (eds.), *Gender in Caribbean Development*, Trinidad & Tobago: University of the West Indies, Women and Development Studies Project, 1988; Keith Hart (ed.), *Women and the Sexual Division of Labour in the Caribbean*, Kingston: Graduate School of Social Sciences, University of West Indies, Mona, 1989; Verene A. Shepherd, Bridget Brereton & Barbara Bailey (eds.), *Engendering History: Caribbean Women in Historical Perspective*, Kingston: Ian Randle Publishers, 1995; Helen Safa, *The Myth of the Male Breadwinner: Women and Industrialization in the Caribbean*, Boulder, CO: Westview Press, 1995; Patricia Mohammed (ed.), 'Rethinking Caribbean Difference', thematic issue of *Feminist Review*, 59 (1998).

¹⁵⁹ Jean Stubbs, 'Women on the Agenda: The Cooperative Movement in Rural Cuba', in Carmen Diana Deere & Magdalena León (eds.), *Rural Women and State Policy*, Boulder: Westview Press, 1987, pp.142-61; 'Gender Issues in Contemporary Cuban Tobacco Farming', *World Development*, 15 (1987), pp.41-65; 'Gender Constructs of Labour in Pre-revolutionary Cuban Tobacco', *Social and Economic Studies*, 33:1-2 (1988), pp.241-69.

¹⁶⁰ J. Gabriel and G. Ben-Tovim, 'Marxism and the Concept of Racism', *Economy and Society*, 7:2 (1978), pp.1818-54; Stuart Hall, 'Race, articulation and societies structured in dominance', in *Sociological theories: race and colonialism*, UNESCO, 1980; Bob Miles, 'Class, Race and Ethnicity: A Critique of Cox's Theory', *Ethnic and Racial Studies*, 3:2, 1980, pp.169-87; Michael Omi and Howard Winant, *Racial Formation in the United States: from the 1960s to the 1990s*, New York: Routledge, 1994.

¹⁶¹ John Rex, *Race Relations in Sociological Theory*, London: Weidenfeld & Nelson, 1970 and *Race, Colonialism and the City*, London: Routledge & Kegan Paul, 1973.

categories.¹⁶² However, considerably more convincing attempts to bring race and class together were made by Stuart Hall, who came to see that these were not just equivalent categories that could be played off against each other, or used to provide mutual context. They were in fact mutually dependent, with each only having any real meaning in so far as they were seen to interact with the other:

Race is the modality in which class is lived. It is also the medium in which class relations are experienced. This does not immediately heal any breaches or bridge any chasms. But it has consequences for the whole class, whose relation to their conditions of existence is now systematically transformed by race.¹⁶³

In a similar vein, Deborah Posel argued against seeing 'class' and 'race' as "analytically independent categories". She looked towards "their concrete interrelationships ...in which racial cleavages and practices themselves structure class relations".¹⁶⁴ The inseparability of class and race, and their centrality to understanding societal developments, can be seen in Cuban history, as Pedro Pérez Sarduy and Jean Stubbs have shown.¹⁶⁵

While all these theorists have succeeded in bringing us closer to a complex understanding of social forces, they nevertheless remain limited in scope, taking a bipolar approach, whether of race and class, or race and gender, that ignores at least one "of the simultaneous and interlocking axes of racial, class, and gender power".¹⁶⁶ To understand society it is necessary to understand the individuals who collectively go to make up that society, and to understand these individuals it is vital to recognise their multiplicity, in which the identity of each is not a given, but something that is in continual flux, "never completed, never finished, ... always as subjectivity itself is, in process".¹⁶⁷ Such complexity has been variously characterised. Balibar and Wallerstein have suggested that identities are "ambiguous", continually being called into question

¹⁶² Robert Miles, *Racism and Migrant Labour: a Critical Text*, London: Routledge & Kegan Paul, 1982.

¹⁶³ Stuart Hall, *Policing the Crisis: Mugging, the State and Law and Order*, London: Macmillan, 1978, p.394.

¹⁶⁴ Deborah Posel, 'Rethinking the "Race-Class Debate" in South African Historiography', *Social Dynamics*, 9:1 (1983), pp.50-66.

¹⁶⁵ Pedro Pérez Sarduy & Jean Stubbs, 'Introduction', in Pedro Pérez Sarduy & Jean Stubbs (eds.), *Afro-Cuban Voices*, Gainesville: University Press of Florida, 2000.

¹⁶⁶ Patricia Hill Collins, *Black Feminist Thought: Knowledge, Consciousness and the Politics of Empowerment*, London: Unwin Hyman, 1990.

¹⁶⁷ Stuart Hall, 'Old and New Identities, Old and New Ethnicities', in Anthony D King (ed.), *Culture, Globalization and the World-System*, Binghampton: Macmillan, 1991, p.47.

and redefined as race, class and nation interact in our lives and experiences.¹⁶⁸ Robin Cohen sees identity more as something “fuzzy”, in which there are no hard lines drawn, and different identity constructs merge into one another.¹⁶⁹ Just as Stuart Hall earlier saw that race and class were intertwined, so too in the 1990s he came to see that our identities, far from being limited to those two sources of social conflict, emerged from a multiplicity of sometimes conflicting, sometimes complementary positions:

[I]dentities are never unified and, in late modern times, increasingly fragmented and fractured; never singular but multiply constructed across different, often intersecting and antagonistic, discourses, practices and positions. They are subject to a radical historicization, and are constantly in the process of change and transformation.¹⁷⁰

More recently he has written on how we need to understand identity as intrinsically unstable, metamorphic and contradictory, marked by multiple points of similarity and difference, in particular as applied to migrant populations.¹⁷¹

A growing number of writers have been exploring such a move beyond unitary analyses, towards a multidimensional interaction of categories of identity.¹⁷² Much of this has been carried out in the context of the study of black (or more broadly, ethnic minority) working class women. Lying as they do at the bottom of all three of the great social power hierarchies, they are generally the most oppressed, and the least represented by the traditional theories and politics of change;¹⁷³ yet by focusing on them it can be seen just how central they in fact were to social and historical developments.¹⁷⁴ Till now, much of this work has been done piecemeal, through individual case studies.¹⁷⁵ A number of scholars have been feeling their way towards a more general conceptualisation of such positions. In *Cartographies of Diaspora*, Avtar

¹⁶⁸ Etienne Balibar & Immanuel Wallerstein, *Race, Nation, Class: Ambiguous Identities*, London: Verso, 1988

¹⁶⁹ Robin Cohen, *The Fuzzy Frontiers of Identity*, London: Longman, 1994.

¹⁷⁰ Stuart Hall, ‘Introduction: Who Needs Identity?’ in Stuart Hall and P. Du Gay (eds.), *Questions of Cultural Identity*, London: Sage, 1996, p.4.

¹⁷¹ Stuart Hall, ‘Cultural Identity and Diaspora’, in Braziel & Mannur, *Theorizing Diaspora*, pp.233-46.

¹⁷² See, for example: Hilary McD. Beckles, ‘Historicizing Slavery in West Indian Feminisms’, *Feminist Review*, 59 (1998), pp.34-56.

¹⁷³ Daiva K. Stasiulis, ‘Feminist Intersectional Theorizing’, in Peter S. Li (ed.), *Race and Ethnic Relations in Canada*, Toronto: Oxford University Press, 1999, p.349.

¹⁷⁴ This has been particularly so in the Caribbean. See, for example: Marie-José N’Zengou-Tayo, ‘Fanm Se Poto Mitan: Haitian Woman, the Pillar of Society’, *Feminist Review*, 59 (1998), pp.118-42; Jean Stubbs, ‘Social and Political Motherhood of Cuba: Mariana Grajales Cuello’, in Shepherd *et al.*, *Engendering History*, pp.296-317; Hilary McD. Beckles, *Natural Rebels: A Social History of Enslaved Black Women in Barbados*, London: Zed Books, 1989

¹⁷⁵ See, for example: Gill Bottomley, Jeannie Martin and Marie de Lepervanche (eds.), *Intersexions: Gender/Class/ Culture/Ethnicity*, Sydney: Allen & Unwin, 1991.

Brah asserts the need for an understanding of the intersection between race, class, gender, and sexuality, in the complex relationship between personal and collective identities and differences: something that has come to be known as ‘intersectional theorising’.¹⁷⁶

Floya Anthias has done much work in developing a theoretical framework for intersectionality. One of the problems facing attempts to bring together class, gender, race and ethnicity within a single overarching theory that does not privilege any one of them, is that they are conceptually very distinct entities, defined in different ways: socio-economic, cultural, biological, political. Nevertheless, Anthias argues that they have certain parameters in common. All social divisions can be looked at in two related ways: through the difference and identity of social categorisation, and the positioning of power hierarchy and stratification. It is this that might permit the construction of a multi-dimensional ‘grid’ of social divisions within which an individual operates:

Gender, ethnos (ethnicity and ‘race’) and class may be seen as crosscutting and mutually interacting ontological spaces which entail social relations and social processes (having experiential, intersubjective, organisational and representational dimensions) that coalesce and articulate at particular conjunctures to produce differentiated and stratified social outcomes.¹⁷⁷

Some recent writers have begun to explore other possible axes alongside class, race, gender and ethnicity, such as sexuality, religion, language and disability. The problem becomes what axes to include in any particular study, and how to recognise where the important lines of division are in individual cases, so as to avoid either forcing reality into a preconceived analytical framework, or falling back into a postmodern malaise in which anything goes. We could look towards what Benedict Anderson described as “imagined communities” in the context of understanding the nation,¹⁷⁸ but which could equally be used when looking at the other imagined collectivities of class, gender, race and so on. Stasiulis recommends that we do not presume uncritically that these axes will be race, class and gender, since there may well

¹⁷⁶ Avtar Brah, *Cartographies of Diaspora: Contesting Identities*, London: Routledge, 1996.

¹⁷⁷ Floya Anthias, ‘The Concept of ‘Social Division’ and Theorising Social Stratification: Looking at Ethnicity and Class’, *Sociology*, 35:4 (November 2001), pp 835-54.

¹⁷⁸ Benedict Anderson, *Imagined Communities: reflections on the origin and spread of nationalism*, London: Verso, 1983.

be many situations in which one or more of these ‘big three’ are not of defining importance, and in which some other category can be seen to be much more central:

Intersectional theorizing understood the social reality of women and men, and the dynamics of their social, cultural, economic, and political contexts to be *multiply, simultaneously, and interactively* determined by various significant *axes of social organization*.¹⁷⁹

Nevertheless, she continues to recognise that in the majority of cases, race, gender and class continue to be of greater importance than other category, because they “provide fundamental axes of social organization of the economy and of relations of production and reproduction, governance, and legal systems, as well as of identity formation”.¹⁸⁰

Forty years ago, E. P. Thompson’s *The Making of the English Working Class* pointed the way towards a new approach that saw history being built up from the grassroots, from the daily actions, thoughts and identities of ordinary people.¹⁸¹ Self-avowedly in opposition to the rigidity and implied elitism of the structuralists, he helped pave the way towards an intersectional history, in which society is constructed from the multiple, contradictory and interacting identities of a myriad of individuals; in which history has a human face; and is made by real human beings who are not reduced to ideal forms.¹⁸² However, Thompson has been criticised for the limited scope of his writing, focusing on an essentially white, masculinized, working class. Although he does reveal the complex process of class formation, he does so without making explicit reference to race or gender as representing formative processes and identities in their own right.¹⁸³

Recognising these limits, Joan Wallach Scott has made a call for a multi-dimensional approach to history:

A theory of meaning that assumes a multiplicity of references, a resonance beyond literal utterances, a play across topics and spheres makes it possible to grasp how connections and interactions work. When such a theory posits the multiple and contested aspects of all

¹⁷⁹ Stasiulis, *Feminist Intersectional Theorizing*, p.347 – emphasis in original.

¹⁸⁰ Stasiulis, *Feminist Intersectional Theorizing*, p.353.

¹⁸¹ E. P. Thompson, *The Making of the English Working Class*, London: Pelican, 1963.

¹⁸² E. P. Thompson, *The Poverty of Theory and Other Essays*, London: Merlin Press, 1978.

¹⁸³ Joan Wallach Scott, *Gender and the Politics of History*, New York: Columbia University Press, 1999, pp.73-8; Robert Gregg, ‘Class, Culture and Empire: E P Thompson and the Making of Social History’, *Journal of Historical Sociology*, 11:4 (December 1998), pp.419-60.

definitions, it also contains a theory of change since meanings are said to be open to reinterpretation, restatement, and negation.¹⁸⁴

Although she is primarily concerned with the engendering of history, the implication of what she writes is that gender, class and race together form a complex of hierarchies, which do not simply exist in parallel to one another, but interact together, with each permeating every level of society.

Scott recognises that identities are not fixed, but fluctuate with time.¹⁸⁵ This is especially so if identity is seen as being constructed from a complex of sources. As a result, histories that problematise identity have been very important in the development of intersectional historical approaches. Simon Gikandi highlights the multiple nature of British identity by an examination of the dialectics of opposition and collaboration that defined the relationship of women, blacks, and other 'others' with the empire. It is not just through who we are, but through who we are not that we construct our sense of identity, and while 'British'-ness became defined as white, middle class, male and English, in truth this was but a facade for a much more complex and profound set of conflicting identities.¹⁸⁶ Noel Ignatiev has drawn attention to how Irish identity in North America changed colour during the nineteenth century. At first treated as being non-whites, both in the British Isles and initially on arrival in the United States:

There they commonly found themselves thrown together with free Negroes. Irish- and Afro-Americans fought each other and the police, socialized and occasionally intermarried, and developed a common culture of the lowly.¹⁸⁷

Having been effectively defined as 'black' by the British, in the United States they encountered a growing nativist hostility to foreigners.¹⁸⁸ However, by changing their alignment within the complex axes of social division, they became 'white':

[I]nstead of the Irish love of liberty warming America, the winds of republican slavery blew back to Ireland. The Irish had faded from

¹⁸⁴ Scott, *Gender*, p.66.

¹⁸⁵ Scott, *Gender*, p.6.

¹⁸⁶ Simon Gikandi, *Maps of Englishness: writing identity in the culture of colonialism*, New York: Columbia University Press, 1996.

¹⁸⁷ Ignatiev, *How the Irish*, p.2.

¹⁸⁸ Desmond King, *Making Americans: Immigration, Race, and the Origins of the Diverse Democracy*, Cambridge, Mass. & London: Harvard University Press, 2000, pp.20-2.

Green to white, bleached by, as O'Connell put it, something in the 'atmosphere' of America.¹⁸⁹

Following a similar argument, Alastair Bonnett has described how the British working class, likewise excluded from 'white' identity, was considered threatening by the ruling class as were Negroes, the Irish and even women. They were another 'other' against which to juxtapose what it meant to be not just 'white', but also truly 'British'. However, one of the effects of increasingly defining the 'other' as something external to the British Isles (through which Late Victorian empire building was justified) was to allow the British working class to become drawn into the national (and racial) polity: they became, in effect, 'white', just as the Irish were becoming in the United States.¹⁹⁰ David Roediger has shown a similar process at work in the formation of the American working class, in which white workers were as motivated by racial identity as were blacks, with this racially-defined division having a profound effect upon working class consciousness.¹⁹¹

Catherine Hall looks at the "complex set of articulations", sometimes mutually reinforcing, sometimes contradicting, of class, gender and ethnicity in mid-nineteenth century Britain:

Cultural identity is always complexly constituted within a field of power and never depends upon any single dimension. To understand the construction of a national identity we need an analysis of the interrelations between class, gender, and ethnicity as axes of power.¹⁹²

In recent years other historians have attempted to write history from a multidimensional perspective. Joan Bak, although primarily concerned with questions of class identity formation, wrote that this "cannot be understood in isolation from

¹⁸⁹ Ignatiev, *How the Irish*, p.31. However, it continued to be a qualified whiteness: "[T]he political history of whiteness and its vicissitudes between the 1840s and 1920s represents a shift from one brand of bedrock racism to another - from the unquestioned hegemony of a unified race of 'white persons' to a contest over political 'fitness' among a new fragmented, hierarchially arranged series of distinct 'white races'" (Matthew Frye Jacobson, *Whiteness of a Different Color: European Immigrants and the Alchemy of Race*, Cambridge, Mass. & London: Harvard University Press, 1998, pp.42-3).

¹⁹⁰ Alastair Bonnett, 'How the British Working Class Became White: The Symbolic (Re)formation of Racialized Capitalism', *Journal of Historical Sociology*, 11:3 (1998), pp.316-40.

¹⁹¹ David R. Roediger, *The Wages of Whiteness: Race and the Making of the American Working Class*, London & New York: Verso, 1991; David R. Roediger, *Towards the Abolition of Whiteness: Essays on race, politics, and working class history*, London & New York: Verso, 1994.

¹⁹² Catherine Hall, 'Missionary Stories: Gender and Ethnicity in England in the 1830s and 1840s', in Lawrence Grossberg, Cary Nelson & Paula A. Treichler (eds.), *Cultural Studies*, New York & London: Routledge, 1992. See also her *Defining the Victorian Nation: Class, Race, Gender and the British Reform Act*, Cambridge: Cambridge University Press, 2000.

interwoven identities of gender, race, and ethnicity”: all necessary ingredients in the development of class consciousness, in the context of working class struggle;¹⁹³ and in his ethnographic study of the workplace in Trinidad, Kevin Yelvington brought together gender, class and ethnic identities in the context of the complex power structures that dominated the lives of the workers.¹⁹⁴

Migration brings into much sharper relief the complexity of identity, and it has been in the writing of migrant histories that such questionings of identity, and the development of intersectional approaches, have been particularly fruitful. Iain Chambers sees migrants as living “between worlds”, and the migration experience as the disruption of the centred ego *par excellence*:

To come from elsewhere, from ‘there’ and not ‘here’, and hence to be simultaneously ‘inside’ and ‘outside’ the situation at hand, is to live at the intersections of histories and memories, experiencing both their preliminary dispersal and their subsequent translation into new, more extensive, arrangements along emerging routes.¹⁹⁵

It is precisely the geographical fluidity of the migrant that brings identity more readily into question. What may be taken for granted by a native, is problematic for the new arrival, laden as he or she is with a complex baggage of identity that finds both points of insertion, and of conflict, with the receiving society. Just as the experience of migrants reveals our general condition of movement, rather than stability, it also highlights the fluid definition of identity. Ellie Vasta stresses the importance of recognising that individuals have multiple, interacting (rather than single, unitary) identities; and shows how such complex identities can only be viewed “through the conflicts, struggles and resistances of the subordinate groups”.¹⁹⁶ Floya Anthias saw the need to see migrant groups “as inserted within a total system of social relations encompassing the country of origin, the ethnic ecological base ... and the country of residence”.¹⁹⁷ Such an approach is key to understanding the Caribbean, formed as it was from multiple migrations. Thus Clem Seecharan looks at how India continued to

¹⁹³ Joan Bak, ‘Class, Ethnicity, and Gender in Brazil: the Negotiation of Workers’ Identities in Porto Alegre’s 1906 Strike’, *Latin American Research Review*, 35:3 (2000), pp.83-123.

¹⁹⁴ Kevin A. Yelvington, *Producing Power: Ethnicity, Gender and Class in a Caribbean Workplace*, Philadelphia: Temple University Press, 1995.

¹⁹⁵ Iain Chambers, *Migrancy, Culture, Identity*, London & New York: Routledge, 1994.

¹⁹⁶ Ellie Vasta, ‘Gender, class and ethnic relations: the domestic and work experiences of Italian migrant women in Australia’, in Bottomley *et al.*, *Intersexions*, p.161.

¹⁹⁷ Floya Anthias, *Ethnicity, Class, Gender and Migration: Greek Cypriots in Britain*, Aldershot: Avebury, 1992, p.139.

impact upon the experience and identity of the indentured labourers from the sub-continent working in Guyana,¹⁹⁸ and the role played by these migrant workers and their descendents in the conflicts out of which that country was built.¹⁹⁹

It is not only through the history of subordinate groups that the complexity of identity can be revealed. In their collection of articles on settler societies, Stasiulis and Yuval-Davis look beyond the dichotomies of gender, race, ethnicity and class to the complex interplay of these, through the interactions between the settler group and the indigenous community.²⁰⁰ Dolores Janiewski, writing on settler colonization in the United States, shows how:

The political, economic and ideological formation of the United States reveals interlinked connections between race, gender and class relations that date their origins to a colonizing process that began more than four hundred years ago.²⁰¹

Thus it can be appreciated that, far from being marginal to societal developments, the experience and identity of migrants can actually be essential constituents of these.

Although many writers are seeking to succeed in taking a fully intersectional approach, there continues to be a tendency for one or other of the axes to remain privileged. All the articles in the above collection dealing with settler societies are primarily concerned with gender, and the need for exploration of “relations between and among women who are differently constituted by race/ethnicity and class”.²⁰² Ana Bravo Moreno talks about the multiple construction of identity, but in the end finds herself, despite her assertions, privileging nation and gender.²⁰³ While Anne-Marie Fortier looks in depth at the interplay between gender, ethnicity and generation, she entirely excludes class as a possible category of identity and difference.²⁰⁴ Peter Wade focuses explicitly on race and ethnicity in his analyses of Latin American

¹⁹⁸ Clem Seecharan, *India and the Shaping of the Indo-Guyanese Imagination, 1890s – 1920s*, Leeds: Peepal Tree Press, 1993.

¹⁹⁹ Clem Seecharan, *‘Tiger in the Stars’: The Anatomy of Indian Achievement in British Guiana, 1919-29*, London: Macmillan, 1997; and *Bechu: ‘Bound Coolie’ Radical in British Guiana, 1894 – 1901*, Barbados, Jamaica and Trinidad & Tobago: University of the West Indies Press, 1999.

²⁰⁰ Daiva Stasiulis and Nira Yuval-Davis (eds.), *Unsettling Settler Societies: Articulations of Gender, Race, Ethnicity and Class*, London: Sage, 1995.

²⁰¹ Dolores Janiewski, ‘Gendering, Racializing and Classifying: Settler Colonization in the United States, 1590-1990’, in Stasiulis & Yuval-Davis 1995, p.157.

²⁰² Daiva Stasiulis and Nira Yuval-Davis, ‘Introduction: Beyond Dichotomies – Gender, Race, Ethnicity and Class in Settler Societies’, in Stasiulis & Yuval-Davis, *Unsettling Settler Societies*, p.16.

²⁰³ Bravo Moreno, *Gender, migration and identity*.

²⁰⁴ Anne-Marie Fortier, *Migrant Belongings: Memory, Space, Identity*, Oxford & New York: Berg, 2000.

identity, although he does recognise the important intersection of these with class, gender, sexuality and religion.²⁰⁵

Such moves towards intersectionality have not been wanting in the writing of Cuban history. As early as 1974, Verena Martinez-Alier was bringing together race, class and gender, in her study of marriage patterns in nineteenth century Cuba.²⁰⁶ Ada Ferrer's account of the independence struggle of the final third of the nineteenth century succeeds in racially deconstructing Cuban national identity, and the organisation and ideology of Cuban nationalism and the independence movement.²⁰⁷ Rebecca Scott's *Slave Emancipation in Cuba* offers a reappraisal of the transition from slavery to 'free' labour in which she gives a more complex idea as to what we mean by 'working class', in which the boundaries between slave and proletarian are, at the very least, blurred.²⁰⁸ Subsequent work by Scott has also looked at national identity, in conjunction with race and class.²⁰⁹ In fact, there is a growing body of work in Cuban history that brings together class, race, gender, nation, and ethnicity in a variety of combinations;²¹⁰ and this is starting to become the standard frame of reference, as can be seen in, for example, Luis Martínez-Fernández's description of life and society in mid-nineteenth century Havana through the retelling of the experiences of a British family, the Backhouses.²¹¹

²⁰⁵ Peter Wade, *Race and Ethnicity in Latin America*, London & Chicago: Pluto Press, 1997.

²⁰⁶ Verena Martinez-Alier, *Marriage, Class and Colour in Nineteenth Century Cuba: A Study of Racial Attitudes and Sexual Values in a Slave Society*, Cambridge: Cambridge University Press, 1974.

²⁰⁷ Ada Ferrer, *Insurgent Cuba: Race, Nation, and Revolution, 1868-1898*, Chapel Hill & London: University of North Carolina Press, 1999.

²⁰⁸ Scott, *Slave Emancipation*.

²⁰⁹ Rebecca J. Scott, 'Race, Labor, and Citizenship in Cuba: A View from the Sugar District of Cienfuegos, 1886-1909', *Hispano-American Historical Review*, 78:4, (November 1998), pp.687-728.

²¹⁰ Amongst the most recent include: Aviva Chomsky, 'Barbados or Canada? Race, Immigration, and Nation in Early Twentieth Century Cuba', *Hispano-American Historical Review*, 80:3 (2000), pp.415-62; Marc C. McLeod, 'Undesirable Aliens: Race, Ethnicity and Nationalism in the Comparison of Haitian and British West Indian Immigrant Workers, 1912-1939', *Journal of Social History*, 31:3, 1998; Barry Carr, 'Identity, Class and Nation: Black Immigrant Workers, Cuban Communism and the Sugar Industry, 1925-1934', *Hispanic American Historical Review*, 78:1 (February 1998); Alejandro de la Fuente, *A Nation for All: Race, Inequality, and Politics in Twentieth-Century Cuba*, Chapel Hill: University of North Carolina Press, 2001; Giovannetti, *Black British Subjects*; Jean Stubbs, 'Race, Gender and National Identity in Nineteenth Century Cuba: Mariana Grajales and the Revolutionary Free Browns of Cuba', in Naro, *Blacks, Coloureds and National Identity*, pp.95-122.

²¹¹ Luis Martínez-Fernández, *Fighting Slavery in the Caribbean: The Life and Times of a British Family in Nineteenth-Century Havana*, Armonk, NY & London: M. E. Sharpe, 1998.

In 1989, Karen Brodtkin Sacks pointed towards this need for a unified theory of class, race and gender;²¹² and in 1992 she was echoed by Catherine Hall, who wrote:

I don't think that we have, as yet, a theory as to the articulation of race, class, and gender and the ways in which these articulations might generally operate. The terms are often produced as a litany, to prove political correctness, but that does not necessarily mean that the forms of analysis which follow are really shaped by a grasp of the workings of each axis of power in relation to the others. Indeed, it is extremely difficult to do such work because the level of analysis is necessarily extremely complex with many variables in play at any one time.²¹³

But by 2001 Floya Anthias had still not succeeded in going much beyond an indication of the necessity for such a theory, providing piecemeal glimpses of what this might entail.²¹⁴

Influence

It needs to be understood how a small set of migrants could have an influence upon the society into which they arrived. This is not simply a question of how their conscious activities and involvement (individual or collective) might have had implications for the wider society. While there may have been some such engagement, it is altogether more likely that their influence was an unconscious one, the product of their everyday actions, words, or even mere presence.

At first sight it might seem that this problem falls within the classic dichotomy between agency and structure, as expressed by Marx:

Men make history, but they do not make it just as they please: they do not make it under circumstances chosen by themselves, but under circumstances directly encountered, given and transmitted from the past.²¹⁵

However, this equation between subject and object, between agent and structure has given rise to heated arguments, even amongst Marxists. The problem is that it becomes all too easy on the one hand, to assert the dominance of the societal structures

²¹² Karen Brodtkin Sacks, 'Towards a Unified Theory of Class, Race and Gender', *American Ethnologist*, 16:3 (1989), pp.534-50.

²¹³ Catherine Hall, 'Missionary Stories', p.270.

²¹⁴ Anthias, 'Concept of Social Division'.

²¹⁵ Karl Marx, *The Eighteenth Brumaire of Louis Bonaparte*, in Karl Marx & Frederick Engels, *Selected Works*, London: Lawrence & Wishart, 1970, p.96.

in which we are forced to live;²¹⁶ and on the other hand, to concentrate on how these structures are built up from the lives and actions of individual human agents.²¹⁷ Partly as a result of this debate, a number of writers have attempted to get back to a fully dialectical reading of Marx's axiom, in which the choice is not between agency and structure, but rather how agency and structure do not just interrelate, but are mutually dependent and inseparable. Perry Anderson examines the different levels at which humans make history, from the private sphere, through the framework of existing social relations in which public goals are pursued, to the collective pursuit of global social transformation, or revolution.²¹⁸ In this way he seeks to merge agency and structure together: society is not just made up from the building blocks of everyday human activity, nor is human activity a mere function of higher structures; but humans live within social structures, with which they are in continual engagement. This position has been further developed by Alex Callinicos, showing how, on the one hand, any theory of agency must concern itself with the "causal powers persons have"; and on the other, how structures are an "important subset of human powers". He brings agency and structure together in the concept of structural capacities, which he defines as being "the powers an agent has in virtue of his or her position within the relations of production".²¹⁹

Most theories of agency are preoccupied with conscious human engagement with society. This is especially so for Marxist writers such as Anderson and Callinicos, who have a political commitment to seek to understand the processes by which humanity can change that society. They define agency as being "conscious, goal-directed activity",²²⁰ and there is little appreciation of how much human involvement in society's structures and history comes about through the unintentional consequences of their actions. In their conception, if there is no intentional activity, then we can be little more than the unthinking victims of structural forces that have been defined, and

²¹⁶ Louis Althusser, *Reading Capital*, London: New Left Books, 1970; Althusser, *For Marx*; Michel Foucault, *The Archaeology of Knowledge*, London: Routledge, 1972. This critique of Foucault is explored in Dieter Freundlieb, 'Foucault's Theory of Discourse and Human Agency', in Colin Jones & Roy Porter (eds.), *Reassessing Foucault: Power, Medicine and the Body*, London: Routledge, 1994, pp.152-80.

²¹⁷ Thompson, *Making English Working Class*; and Thompson, *Poverty of Theory*.

²¹⁸ Perry Anderson, *Arguments within English Marxism*, London: Verso, 1980.

²¹⁹ Alex Callinicos, *Making History: Agency, Structure and Change in Social Theory*, Cambridge: Polity Press, 1987, p.235. Callinicos develops the idea of structural capacities from that held by Erik Olin Wright (*Class, Crisis and the State*, London: New Left Books, 1978, pp.97-108).

²²⁰ Anderson, *Arguments*, p.19.

continually manipulated, by the actions of those who, pursuing defined ends, have actively engaged with the system. The problem is that most of the time, most of us do not have a clear idea of the structures within which we live, let alone how we might usefully engage with them. Yet, unwittingly, we are in everyday engagement, and our unthinking actions are both the consequence of social structures, and must themselves be formative of these: unless we are to accept a view of society and history in which only a fully aware elite (whether rulers or revolutionaries) can be considered fully to be actors.

While such writers are sensitive to the interrelationship between agency and structure, they continue to define their ideas within the bounds of that dichotomy. We are still either subjects or objects, free or determined – even though the one depends upon the other for its existence. It might be necessary to attempt to transcend these dualisms, rather than integrate them, if we are fully to understand how the everyday activity of individuals and groups of individuals can come to have unforeseen effects.

Anthony Giddens has written that “human history is created by intentional activities but is not an intended project”.²²¹ Unlike Anderson, he argues that agency does not necessarily entail intentionality, and considers the importance both of unintentional actions, and unintentional consequences.²²² Partly through his exploration of this, and its implications for society formation and development, Giddens has developed his Structuration Theory. In this, although “all human beings are knowledgeable agents”, this knowledgeability “is always bounded on the one hand by the unconscious and on the other by unacknowledged conditions/unintended consequences of action”.²²³ He shows how these unintended consequences can arise: first, through a single event triggering a whole series of apparently unrelated effects, that appear to be outside our control; second, a “pattern of consequences from a complex of individual activities”; and third, “the mechanisms of reproduction of institutionalized practices”.²²⁴ However, for all that Giddens’s theory points the way to an understanding of influence, and a more complex appreciation of the interaction between human agents and the structures that make up society, he continues to

²²¹ Anthony Giddens, *The Constitution of Society*, Cambridge: Polity Press, 1984, p.27.

²²² Giddens, *Constitution of Society*, pp.9-14.

²²³ Giddens, *Constitution of Society*, pp.281-2.

²²⁴ Giddens, *Constitution of Society*, pp.13-14.

maintain an abstraction between agent and structure, and does not provide an entirely convincing conception as to how the two may be not merely integrated, but transcended.²²⁵

Pierre Bourdieu's Theory of Practice seeks to go beyond the subject/object dichotomy to achieve an understanding of how objective structures are constructed from the practice of subjects, and how the practice of those subjects is constrained by these objective structures. In one sense Bourdieu is offering a rephrasing of Marx's dialectical axiom, but he does also go further, by looking not towards the two poles of the dichotomy, but to the space between them, focusing his attention upon the question of the interaction and interdependence itself.²²⁶

Bourdieu's work has the virtue both of viewing society as a whole, and also the minutiae of daily existence within that society, without forcing either into the straitjacket of a hierarchical structure of levels of analysis. He does not start 'at the bottom' and work his way up (as would the humanist phenomenologists), nor vice versa (as would the structuralists), but has a thoroughly dialectical approach that ties the individual, the group and the wider society together into a coherent and living system of analysis. He achieves this through what is quite a straightforward conceptualisation: conceiving of society as a social space, made up of multiple and interacting fields. These fields are not seen as neutral, bounded spaces in which events occur, but as fields of forces, power relations in struggle over different forms of capital.²²⁷ For Bourdieu, capital is not defined in a purely economic sense, but can be seen to extend itself:

to all goods, material and symbolic, without distinction, that present themselves as *rare* and worthy of being sought after in a particular social formation.²²⁸

²²⁵ Goran Ahrne, *Agency and Organization: Towards an organizational theory of society*, London: Sage, 1990, p.133.

²²⁶ Pierre Bourdieu, *Outline of a Theory of Practice*, Cambridge: Cambridge University Press, 1977, p.96.

²²⁷ Richard Harker, Chris Wilkes & Cheleen Mahar, 'The Basic Theoretical Position', in Harker, Wilkes & Mahar (eds.), *An Introduction to the Work of Pierre Bourdieu: the Practice of Theory*, London: Macmillan, 1990, pp.8-9; Pierre Bourdieu, 'The Forms of Capital', in A. H. Halsey, H. Lauder, P. Brown & A. Stuart Wells (eds.), *Education: Culture, Economy, Society*, Oxford: Oxford University Press, 1997, pp.46-58.

²²⁸ Bourdieu, *Outline*, p.178.

All individuals, have a position within the social space defined by their alignment within the multiple struggles taking place within that society, and identity (or at least similarity) of interest becomes established between individuals who find themselves in close proximity within this social space, leading to the establishment of personal relationships and the possibility of the emergence of different classes.²²⁹

But there is another important concept that Bourdieu introduces, which allows his theory to take into consideration (and even place centre stage) the unconscious involvement of individuals, or the unintentional consequences of their activities. All of our actions are mediated by the sets of meanings within which we operate and which are defining of the group to which we belong.²³⁰ In this way our practices are harmonized and co-ordinated within a group, even without our conscious awareness of this.²³¹ It is through a shared set of meanings that we are able to form personal relationships, and are able to understand one another.²³² But while this provides the stability of our social existence, and is a given that we learn from birth onwards, it is also the carrying through into the present of the outcomes of the different, interrelating fields of our social space. It is therefore at one and the same time stable and fluid.²³³ This offers a basis for understanding how migrants, inserting themselves into the social space of another society while behaving according to an alien set of meanings or identity, might have unforeseen consequences upon their host society.

Conclusion – The debates and the *maquinistas*

To have gone into such depth in outlining these conceptual debates may appear to have been a digression. However, it was a necessary one. Not only do they provide the context for the uncovering of each element in the history of the migrant *maquinistas*. This study questions how such a small, marginalised migrant group interacts with, and

²²⁹ Chris Wilkes, 'Bourdieu's Class', in Harker *et al.*, *Practice of Theory*, pp.109-31. Bourdieu's definition of class is more extensive than that of Marx, all though it would include the latter. Since it bases itself on an awareness of the multiplicity of fields of struggle in society, it is more than just the relationship to the material means of production, but also to other sites of power. As such, Bourdieu's Theory of Practice may have important implications for understanding the complex process by which class, race, gender, etc., interact – since all of these can be redefined as being different forms of 'class'.

²³⁰ This is his concept of 'habitus' (Bourdieu, *Outline*, p.79).

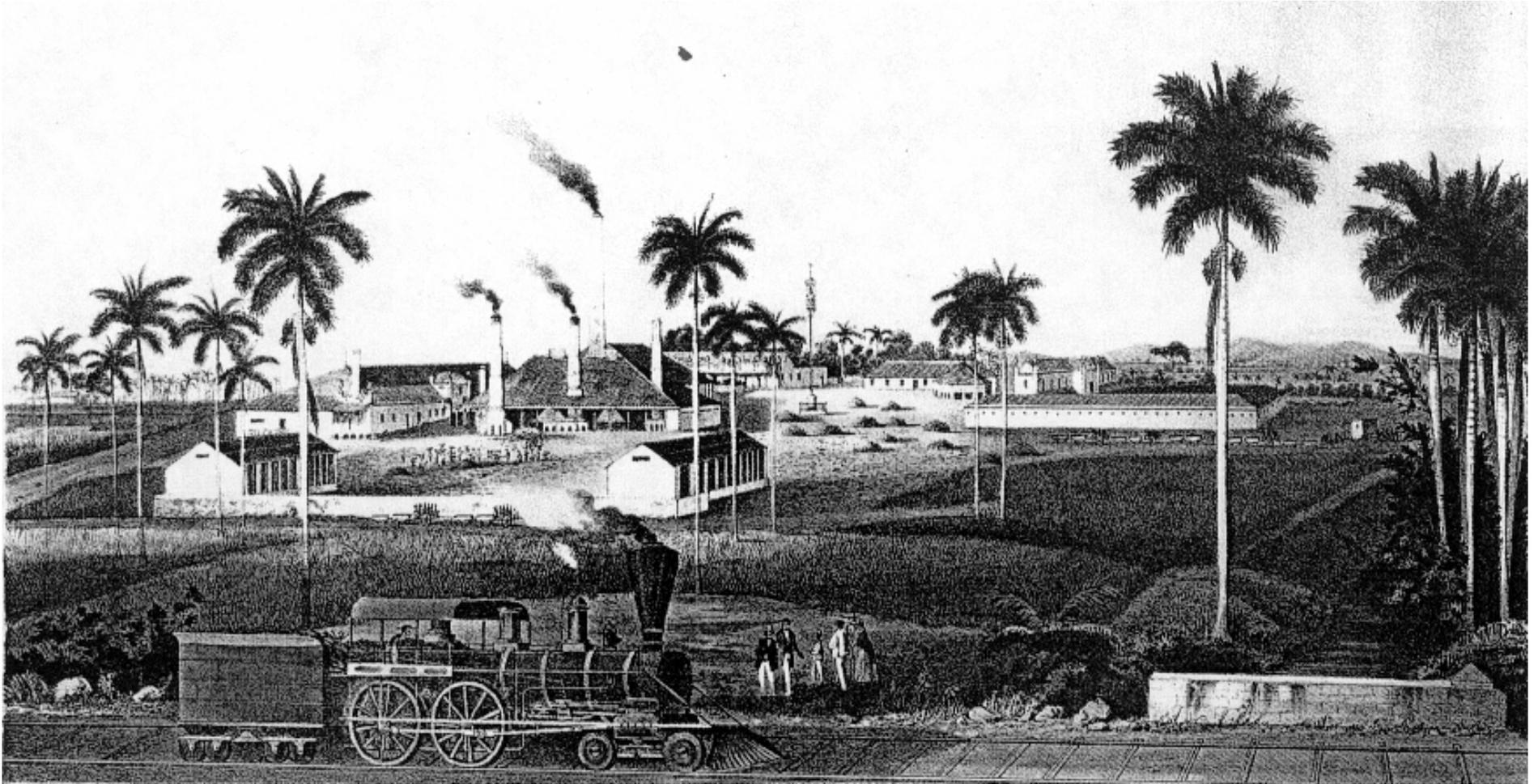
²³¹ Bourdieu, *Outline*, pp.78-81.

²³² Harker *et al.*, 'Basic Theoretical Position', p.10.

²³³ Pierre Bourdieu, *The Logic of Practice*, Cambridge: Polity Press, 1990.

influences, a particular society, and these debates are the individual strands through the combination of which it will become possible to suggest an answer.

It will be shown how the presence of the *maquinistas* in Cuba was the result of the island's incorporation into the developing transnational networks of the nineteenth century, in particular those of commerce and technology. Their migration itself needs to be seen as transnational in nature, and forming a part of a much broader migratory milieu. It will be seen how they were not passive participants in these networks, but in some cases became agents in their development, for all that they appear to have been driven by personal aspirational impulses. This led some of them to play an important part in technological innovations. Their encounter with Cuban society will be analysed in an intersectional way, showing how the contradictions experienced between their position in respect to power and capital, their perceptions of themselves, and how others perceived them led them to rearticulate their complex identities. It will be suggested that their experience does not fit easily into transculturative notions of incorporation, but appears to have led to their exclusion from Cuban society. From there, the difficult question of how they nevertheless influenced this society is approached.



I - The 'Acana' Sugar Mill, with steam locomotive (c.1857)

(Source: Cantero, *Los ingenios*, 1857)

CHAPTER TWO
TRANSFORMING THE SUGAR INDUSTRY:
COMMERCIAL NETWORKS AND MACHINES

In 1850, the *Faro Industrial* of Havana advertised the services of a “friendly tortilla seller who lives in Monserrate Street”, who boasted of “offering the public ...an exquisite selection made to marvellous perfection”, with sugar from, and in honour of, “Derosne’s outstanding machine”.¹ The referred-to machine was the vacuum evaporator, built by the French engineer Derosne, which had recently been applied to sugar production in some of the largest Cuban mills, and which was enabling the elaboration, without recourse to further refining, of an even higher quality white sugar than that for which Cuba had already become renowned.² It was an example of the technological developments of the nineteenth century, applied to sugar production, which led to the migration to Cuba of foreign *maquinistas*.

The Atlantic nations which clashed, whether as imperial powers or as independence-claiming colonies, came into being “within a multinational network and within an international trading system”.³ From the seventeenth century, European and North American manufactured products were traded in Africa for slaves, which were in turn exchanged in the New World colonies for a variety of tropical commodities. These were then taken back for sale in the growing metropolitan markets.⁴ The enslaved Africans were needed for the plantations of the Americas, and the ‘triangular trade’ that brought them formed the foundations of the interdependent Atlantic world.⁵ This in turn stimulated the industrialisation that was revolutionising production first in Britain, and subsequently in continental Europe and North America.⁶ As a consequence it became possible to develop the machinery, which gave

¹ *El Faro Industrial de la Habana*, 24th October 1850 – my translation.

² Moreno Friginals, *El Ingenio*, p.113.

³ Peggy K. Liss, *Atlantic Empires: the Network of Trade and Revolution, 1713 – 1826*, Baltimore & London: Johns Hopkins University, 1983, p.239. See also Williams, *Capitalism and Slavery*; and Immanuel Wallerstein, *The Second Era of Great Expansion of the Capitalist World Economy, 1730-1840s*, San Diego: Academic Press, 1989.

⁴ Sidney Mintz, *Sweetness and Power: the Place of Sugar in Modern History*, New York: Penguin, 1985, p.43.

⁵ Butel, *The Atlantic*, pp.223-5; Curtin, *Rise and Fall*, pp.129-43.

⁶ Eric Hobsbawm, *Industry and Empire*, London: Penguin, 1969.

further impetus to the colonial plantation economies by turning them into “vast agrarian factories”.⁷

In the mid-nineteenth century, trade can still be seen as an underlying organising principle of the Atlantic world, in particular as European and North American powers sought to tighten their influence and control over the Caribbean, Latin America and Africa.⁸ By the time the slave trade became outlawed in the early nineteenth century, while political tensions were defining lines of power and influence, these same lines were being broken down by the commercial networks established by a transnational web of merchants. While these had begun through the informal linking together of trade posts established by “diasporic merchants”, by the middle of the nineteenth century they had become transformed into networks of economic penetration and domination by metropolitan powers, through the agency of the increasingly powerful merchant banks which provided the investment necessary for the development of production.⁹

Along with cotton, sugar was fundamental in the definition of the Atlantic world and its interlacing networks.¹⁰ Much of the geo-political rivalry over Cuba by the Atlantic powers (Britain, the United States, France and Spain) was related to its position as the world’s leading sugar colony in the nineteenth century;¹¹ and most of the island’s international commerce was sugar-related.¹² The need of the sugar plantations for workers provided the prime stimulus for the Atlantic slave trade; and the mid-nineteenth century industrial revolution in sugar production saw the immigration of skilled workers, not just to the sugar mills themselves, but also for the railways that were developed to speed up the transport of the crop from fields to

⁷ O. Nigel Bolland, *The Formation of a Colonial Society: Belize, from Conquest to Crown Colony*, Baltimore & London: Johns Hopkins University Press, 1977, p.x.

⁸ See Knight & Liss, *Atlantic Port Cities*; also Rory Miller, *Britain and Latin America in the Nineteenth and Twentieth Centuries*, London: Longman, 1993, for a detailed description of British penetration of Latin America as a whole.

⁹ Philip D. Curtin, *Cross-Cultural Trade in World History*, Cambridge: Cambridge University Press, 1984, pp.230-54; Butel, *The Atlantic*, p.213.

¹⁰ See Dale W. Tomich, *Slavery in the Circuit of Sugar: Martinique and the World Economy, 1830-1848*, Baltimore & London: The Johns Hopkins University Press, 1990, which intricately describes the mid-nineteenth century Martinican sugar industry and its interrelationship with the Atlantic world and beyond.

¹¹ Martínez-Fernández, *Torn Between Empires*. Prior to the nineteenth century, this honour could be claimed by Saint Domingue and Barbados.

¹² Ely, *Cuando reinaba....*

factory, and from there to external markets. Other products, notably coffee and tobacco, also continued to play an important part in the tying of Cuba into international economic relations.¹³ However, the rapid development of the sugar industry, through which Cuba was propelled into becoming the richest colony in the world by 1867,¹⁴ was detrimental to the diversity of Cuban agricultural production. While tobacco had stimulated Cuba's entry into world markets in the eighteenth century, by 1847 this accounted for less than 15% of the island's exports.¹⁵

This chapter explores the economic and technological background to the migration to Cuba of the foreign *maquinistas*. Beginning with how sugar came to dominate the island's production and economy in the nineteenth century, it goes on to uncover the role played by the commercial networks upon which the sugar trade depended. While most studies are written from the point of view either of waning Spanish dominion,¹⁶ or of growing United States domination,¹⁷ it is argued that mid-nineteenth century Cuba can be more usefully seen in the context of such transnational networks. Moreno Fraginals identifies the 1860 to 1890 period as the one in which "the centuries-old structure of the sugar industry was shattered, to be replaced by completely new forms of production and commerce and even by a new form of the final product itself".¹⁸ Anton Allahar has located the foundations for this in the growing subordination of the planters to merchants, prior to the 1860s.¹⁹ Here this argument is taken further, showing how the merchants resident in Cuba were themselves dependent upon the commercial networks, and increasingly subordinate to the metropolitan merchant bankers from whom the much needed investment capital originated. Much of this dependency was the result of the introduction of expensive new technology above all from Britain, the United States and France, the history of which is described not just in macro-historical terms, but by also detailing the

¹³ On tobacco, see Stubbs, *Tobaco en la periferia*; on coffee, see Pérez de la Riva, *El café*.

¹⁴ Leland Jenks, *Our Cuban Colony*, New York: Vanguard Press, 1928, p.21.

¹⁵ Ely, *Cuando reinaba...*, pp.44-5; Gustave, Vizconde de Hespel d'Harponville, *La Reine des Antilles*, Paris, 1850, p.412. However, at the same time Cuban tobacco came to assert its position as the world leader in quality (Stubbs, *Tobaco en la periferia*).

¹⁶ For example, Schmidt-Nowara, *Empire and Anti-Slavery*.

¹⁷ For example, Martínez-Fernández, *Torn Between Empires*.

¹⁸ Manuel Moreno Fraginals, 'Plantations in the Caribbean: Cuba, Puerto Rico and the Dominican Republic in the late nineteenth century', in Moreno Fraginals *et al.*, *Between Slavery and Free Labor*, p.3. See also Susan J. Fernández, *Encumbered Cuba: Capital Markets and Revolt, 1878-1895*, Gainesville: University Press of Florida, 2002.

¹⁹ Allahar, *Class, Politics and Sugar*.

interrelationships between planters, merchants and machine producers that made it possible. As with the *maquinistas*, this is a story that previously has rarely gone beyond the footnotes of history.²⁰ The chapter concludes with a discussion on the role played by technology in the forging of nineteenth century economic imperialism, in which, as will be seen, the foreign *maquinistas* were agents.

Sugar and the transnational commercial networks

At one time, sugar was considered a luxury commodity; but by the nineteenth century, its consumption had become popularised, and it was forming an increasingly central part of the working class diets of Europe and North America.²¹ “The importance of sugar cannot be overrated”, a member of the Royal Society of Arts commented, “when we consider the enormous increase of this dietetic article all over the world”. By the 1860s, an estimated half a million tons of sugar were being consumed annually in Great Britain alone, representing more than 42 pounds per person:²² some forty times higher than consumption at the beginning of the eighteenth century.²³ This proletarianisation of sugar, begun in Britain to overcome the shortfalls of the working class diet, has since extended globally, helping “to fill the calorie gap of the laboring poor”, and becoming “one of the first foods of the industrial work break”.²⁴

Though the first Cuban sugar mill was established in 1576, development of the industry was slow until the eighteenth century,²⁵ when possibilities appeared for Cuba to engage commercially with the French and English.²⁶ It has been argued that the

²⁰ With the exception of Ely, *Cuando reinaba...*, pp.505-66. Andres Ramos Mattei has explored the role of imported machinery in the Puerto Rican sugar industry (‘The Role of Scottish Sugar Machinery Manufacturers in the Puerto Rican Plantation System: 1842-1909’, *Scottish Industrial History*, 8:1 (1985), pp.20-30). David Denslow describes the introduction of steam technology into Cuba, but in the context of a comparison in sugar growth in the island and Brazil (*Sugar production in Northeastern Brazil and Cuba, 1858-1908*, New York & London: Garland Publishing, 1987). Felix Goizueta-Mimo looks at technological innovations in the emergence of Cuban monoculture and economic dependency (*Bitter Cuban Sugar: monoculture and economic dependence from 1825-1899*, New York & London: Garland Publishing, 1987). Most other sources relating to nineteenth century Cuban economic history, and sugar production, mention the importation of machinery, without making this an object of research.

²¹ Mintz, *Sweetness and Power*, pp.74-150.

²² N. P. Burgh, ‘The manufacture of sugar’, extracts of a paper given before the Royal Society of Arts, 4th April 1866 (in *English Mechanic and Mirror of Science*, 11th May 1866, p.126); N.P.Burgh, *The manufacture of sugar*, London: Trubner & Co., 1866.

²³ G. Dodd, *The Food of London*, London: Longman, Brown, Green & Longmans, 1856, p.429.

²⁴ Mintz, *Sweetness and Power*, p.149.

²⁵ Benítez, *Las Antillas*, pp.136-8.

²⁶ Le Riverend, *Historia económica*, p.161.

eleven-month occupation by the English in 1762-63 of Havana, and the surrounding sugar-rich lands, greatly stimulated the development of sugar plantations and trade, along with the introduction of considerable numbers of slaves.²⁷ However, more recent research discredits the belief that Cuba's plantation economy dates from then, and shows that the island's agriculture continued to be dominated by peasant small-holdings.²⁸

This began to change radically from the 1790s. The island was perfectly placed to benefit from the collapse in sugar production in neighbouring St. Domingue, following the revolution there at the end of the eighteenth century. Not only did this immediately remove from the world market the most important sugar colony of the period, but also resulted in a sharp increase in sugar prices, which made it particularly attractive for Cuban planters to expand their cane fields, and to move their cultivation away from coffee.²⁹ Cuban sugar producers further benefited from the crisis in British West Indian sugar production in the aftermath of slave emancipation:³⁰ visitors to Jamaica from Cuba in the 1830s were happily reporting back on the "falling off in its crops ...under the new system".³¹ Foreign observers were in little doubt that much of the increased sugar production in Cuba in the mid-nineteenth century was due to the island's increased competitiveness, "arising from the diminished production in the British West Indies ...and ...by the constant increase of labour provided to the [Cuban] planters ...by the unrestricted continuance of the African Slave Trade".³² It was not just thanks to the misfortune of others that Cuba succeeded in rising. Also important were the establishment of free trade with all Spanish ports, and occasionally with neutral powers; the active interchange between planters and merchants, which helped bring large amounts of capital into the plantations; the foundation of such liberal,

²⁷ Moreno Fraginalls, *El Ingenio*, Vol.1, pp.34-5; Ely, *Cuando reinaba...*, pp.47-86.

²⁸ Johnson, *Social Transformation*.

²⁹ Louis A. Pérez, Jr., *Cuba : Between Reform and Revolution*, 2nd edition, New York & Oxford: Oxford University Press, 1995, pp.71-4.

³⁰ Michelle Harrison, *King Sugar: Jamaica, the Caribbean and the World Sugar Economy*, London: Latin America Bureau, 2001, p.107; William A. Green, *British Slave Emancipation: the sugar colonies and the Great Experiment, 1830-1865*, Oxford: Clarendon Press, 1976. The advantage to Cuba of continuing slavery while the British West Indies had been emancipated can be seen in sugar prices. Throughout the 1840s, while British West Indian sugar ranged between 32 and 40 shillings per hundredweight, the equivalent Cuban sugar cost just 20 to 26 shillings (British Parliamentary Papers (PP), 1847-48, lviii, p.422; PP 1866, lxvi, p.193).

³¹ Letter from Wright, Brooks & Co. to Baring Brothers & Co., Santiago de Cuba, 7th January 1839 (Barings Archive (BA), HC 4.6.6, No.294).

³² Trade report from Turnbull to Palmerston, Havana, 27th July 1841 (PRO, FO 72/585, No.63).

modernising bodies as the *Real Consulado* and the *Sociedad Patriótica de Amigos del País* in Havana, with the growing cultural hegemony of Creole elites intent upon improving the island's fortunes; and, often thanks to the latter's agency, the rapid introduction of improvements in sugar technology.³³

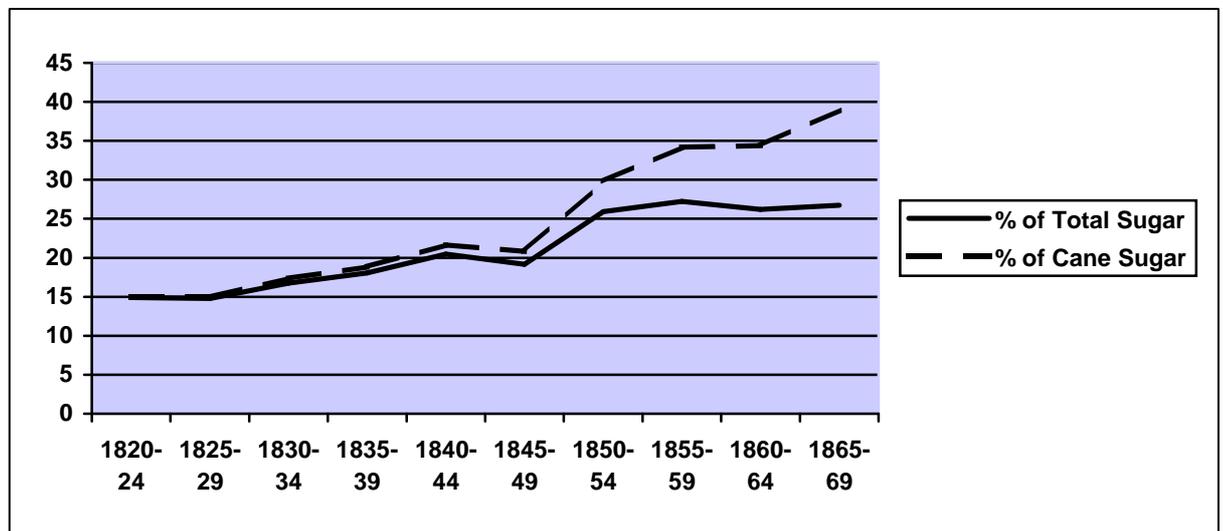


Figure 1 - Cuban share of world sugar production (1820-79)

(Source: Moreno Fragnals, *El Ingenio*, Vol.3, pp.35-7)

By the mid-nineteenth century, Cuba had emerged as the world's leading sugar producer. As Figure 1 shows, through the period the island's share of cane sugar production steadily increased, although the rise of beet sugar from the 1850s saw the gradual erosion of Cuba's overall position as a sugar producer. By 1870, Cuba was producing more than twelve times the quantity it had been in 1825,³⁴ and more than 40% of the world's cane sugar (or 26% of total sugar supplies) came from Cuba alone.³⁵ One newspaper that represented the interests of sugar traders and manufacturers in Scotland commented in 1873:

Never to be under-rated is the importance to which Cuba has attained in reference to the supply of Sugar. Constant and never intermittent as is the drain upon her resources, these are never altogether exhausted. Her capacity, by no means fully developed,

³³ Alexander von Humboldt, *The Island of Cuba*, New York: Derby & Jackson, 1856; Moreno Fragnals, *El Ingenio*; Le Riverend, *Historia económica*.

³⁴ 1825: 56,150 tons; 1870: 702,974 tons (Moreno Fragnals, *El Ingenio*, Vol.3, pp.35-7).

³⁵ Moreno Fragnals, *El Ingenio*, Vol.3, pp.35-7. See also Alan Dye, *Cuban Sugar in the Age of Mass Production: Technology and the Economics of the Sugar Central, 1899-1929*, Stanford, Ca: Stanford University Press, 1998, p.27.

has been equal to the production of an enormous mass of produce for the European and American markets.³⁶

Cuban sugar came to be widely sought after by refiners and merchants the world over, because its quality was renowned. “Cuban sugars, being of a dry, firm grain,” reported Richard McCulloch to the US Government in 1846, “are therefore always sold readily and at good prices”.³⁷ Although outside the principal sugar districts of Western and Central Cuba the sugar being produced was generally of a crude variety (*raspadura*) used for local consumption;³⁸ where export crops were developed, sugars of varying purities were manufactured.³⁹ While the lower quality (and hence lower value) sugars were generally exported to Spain, those of superior quality were destined for the more lucrative foreign markets of North America and Europe.⁴⁰ Despite import duties aimed at protecting the interests of metropolitan sugar refiners, such was the standard of mid-nineteenth century Cuban sugars that they continued to be highly competitive.

The buoyancy of Cuban sugar production can be seen not only in the figures for total production and export. The mid-nineteenth century saw the establishment of a considerable number of new plantations and sugar mills, as the sugar frontier moved steadily down the island (see Table 1). What had once dominated the countryside surrounding Havana, by the 1840s had shifted its centre to Matanzas and Cárdenas, and the movement Eastwards continued throughout the century (see Map 4). Meanwhile, new landowners tamed the region around Sagua la Grande with cane. Along the South coast, the relatively small plantations of Trinidad gave way to the large estates in the region of the newly established city of Cienfuegos. The increase was not only seen in the numbers of plantations, but also in the scale of production.

³⁶ *Greenock Sugar Trade Review*, 1st October 1873.

³⁷ Letter from McCulloch to Professor A. D. Bache, Philadelphia, 20th July 1846 (in *Reports from Secretary of the Treasury of Scientific Investigations in Relation to Sugar and Hydrometers by Prof. R. S. McCulloch*, Washington, 1848).

³⁸ Carlos Rebello, *Estados relativos a la produccion azucarera de la Isla de Cuba, formados competentemente y con autorizacion de la Intendencia de Ejercito y Hacienda*, Havana, 1860.

³⁹ The Cuban *Colegio de Corredores* recognised sixteen grades of Cuban sugar, ranging from Derosne-train white down to Standard muscovado (Moreno Friginals, *Sugarmill*, pp.118-9). However, McCulloch (in *Reports*, 1848) identifies just five sugar grades produced in Cuba from the claying process, and Adolfo Muñoz del Monte (in *Revista de Agricultura*, quoted by Robert P. Porter, *Industrial Cuba*, New York & London: The Knickerbocker Press, 1899, pp.295-7) describes just four. These were the result of the introduction of new techniques of defecation, filtering, reduction and purging, introduced in the sugar mills so as to remove the necessity for further refining.

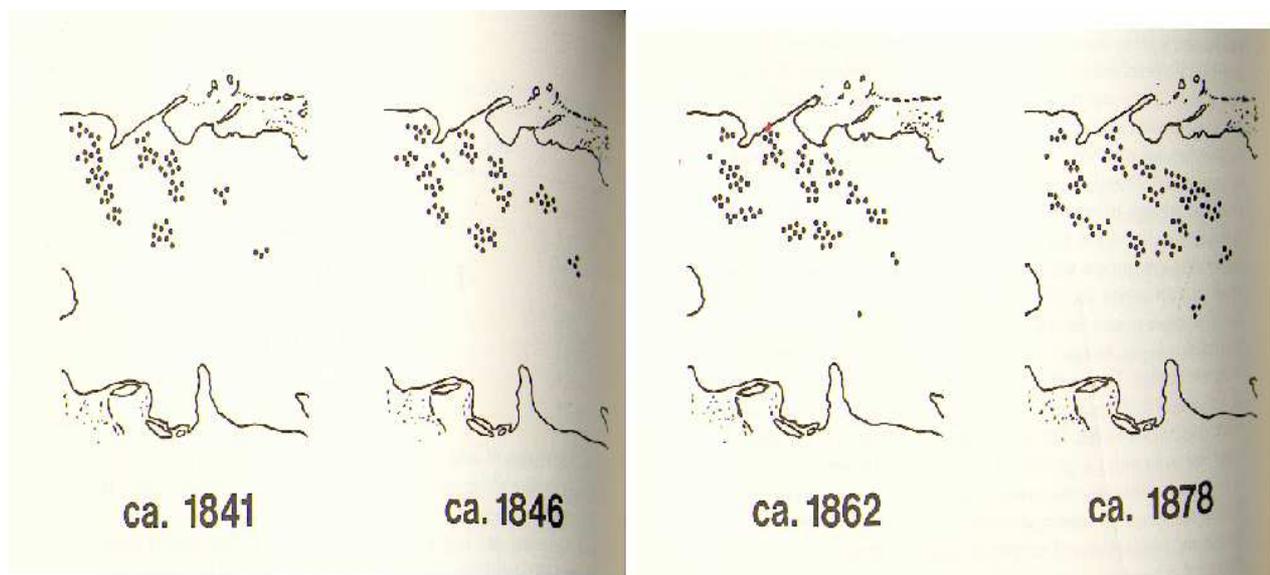
⁴⁰ Letter from Turnbull to Palmerston, 27th July, 1841 (PRO, FO 72/585, No.63).

Whereas in 1830 the average output of a single sugar mill was just 72 tons, this had grown to 120 tons by 1841, and 316 tons by 1860: and where steam engines and other new sugar technology were introduced, the increase was still greater:⁴¹ in some cases, as many as 3,000 tons might be produced in a single harvest.⁴²

Table 1 - Number of sugar plantations in Cuba, and principal sugar growing districts (1827-62)

(Source: Marrero, *Cuba*, Vol. X, p.278)

	1827		1846		1862	
	Number	% of total	Number	% of total	Number	% of total
Total	1,000	100%	1,442	100%	1,473	100%
Havana Province	338	34%	296	21%	166	11%
Matanzas	111	11%	152	11%	134	9%
Cárdenas	0	0%	199	14%	147	10%
Colón	0	0%	0	0%	113	8%
Trinidad	56	6%	43	3%	49	3%
Cienfuegos	0	0%	71	5%	104	7%
Sagua la Grande	0	0%	59	4%	125	8%



Map 4 - Expansion of sugar Eastwards through Matanzas province, 1841-78

(Each dot represents approximately 5 plantations)

(Source: Bergad, *Cuban Rural Society*, p.142)

⁴¹ Pérez, *Between Reform and Revolution*, p.77.

⁴² Benítez, *Las Antillas*, p.200.

Güines to Havana in 1830, by 1840 the same quantity cost just \$1.25 by train.⁴⁴ It was largely because of this that Matanzas province was able to develop as strongly as it did, and “by mid-century, wealthy planters could breakfast in Havana and dine on their estates in distant Colón by early evening”.⁴⁵ It was along the Cárdenas to Júcaro railroad, built around 1840, that many of the largest and most important mid-nineteenth century sugar mills – such as ‘Flor de Cuba’, ‘Alava’, and ‘Tingüaro’ – developed.⁴⁶

For all that the mid-nineteenth century brought an impressive expansion of the Cuban sugar industry, the period was at the same time characterised by a state of chronic crisis.⁴⁷ There were the perennial problems of finding sufficient workers for the plantations. As a result, the planters became dependent upon the maintenance of the slave system, despite the growing social tensions that this implied.⁴⁸ As new technologies were introduced, with their potential for accelerating production, the shortage of labour came to be more keenly felt. Combined with the rise of European beet sugar from the 1850s, and the emergence of other sugar producers such as Java and India, world sugar prices began to drop.⁴⁹ The resultant diminishing rate of return experienced by the planters further stimulated an increase in production. Many planters were led to believe that the way forward was through the manufacture of first class sugars, “and machinery was improved at great expense for the purpose of manufacturing this grade”.⁵⁰ All but the strongest of sugar mills were unable to keep up with this pace of development. They became increasingly dependent upon foreign investors, and it became harder for them to weather depressions in the world sugar

⁴⁴ Pérez, *Between Reform and Revolution*, p.75.

⁴⁵ Bergad, *Cuban Rural Society*, p.107.

⁴⁶ Bergad, *Cuban Rural Society*, p.118.

⁴⁷ Moreno Fraginals, *El Ingenio*, Vol.2, pp.174-221.

⁴⁸ Julio Angel Carreras, *Cuba: contradicciones de clases en el siglo XIX*, Havana: Editorial de Ciencias Sociales, 1985; Barcia, *Burguesía esclavista*; Scott, *Slave Emancipation*.

⁴⁹ Letter from Luis Mariategui to Joshua Bates, Havana, 30th April 1842 (BA, HC 4.6.2 (Part 2), No.214); Ely, *Cuando reinaba...*, pp.420-1; Noel Deerr, *Cane Sugar: A Textbook on the Agriculture of the Sugar Cane, the Manufacture of Cane Sugar, and the Analysis of Sugar House Products*, Manchester: Norman Rodger, 1911; John Alfred Heitmann, *The Modernization of the Louisiana Sugar Industry, 1830-1910*, Baton Rouge & London: Louisiana State University Press, 1987, pp.49-59.

⁵⁰ Muñoz del Monte, in Porter, *Industrial Cuba*, pp.295-7.

market.⁵¹ In effect, the Cuban sugar industry was becoming the victim of its own success.

By the 1860s, this crisis came to a head. Partly as a result of the American Civil War, which was a cause for concern in Cuba and led to much trade being switched to Europe;⁵² but mainly due to the growth of the North American refining industry, there was a decline in the quality of Cuban sugar.⁵³ Much of this impetus came from the foreign investors, who had been pressing for such a switch to low quality *muscovado* sugars, which was “considerably more economical, and would save in ...the hiring of negroes which is very heavy and will become higher every year”.⁵⁴ This push became implacable when the principal sugar refining countries, the United States and Britain, closed their markets to Cuban semi-refined sugars.⁵⁵ With the growing challenge from cheap beet sugar, the quality of the Cuban product steadily declined, so that by 1884 most mills were producing not the high-grade sugars for which they had been famous in the mid-nineteenth century, but *muscovado*.⁵⁶ The late nineteenth century also saw the radical restructuring of the Cuban sugar industry. The effects of debt and bankruptcy, civil war, rising costs and growing competition forced a process of centralisation, whereby the strongest mills survived and expanded, while the weaker died.⁵⁷ By 1904, only 174 mills were still grinding – albeit with an average production twenty times the combined production of all mills in operation in 1860.⁵⁸

Cuba and the Atlantic commercial networks

Ever since the sixteenth century, Cuba had been perceived to be “the boulevard of the New World”,⁵⁹ and Havana was “the key of the Mexican Gulph [sic].”⁶⁰ The island provided a staging post first for the Spanish bullion armadas, and by the nineteenth

⁵¹ Guerra, *Azúcar y población*, p.62; Luis Martínez-Fernández, ‘The Sweet and the Bitter: Cuban and Puerto Rican responses to the mid-nineteenth-century sugar challenge’, *New West Indian Guide*, 67 (1993), pp.47-63.

⁵² Letter from Brooks & Co. to Moses Taylor & Co., Santiago de Cuba, 26th April 1861 (Museo de la Ciudad, Havana (MC), Fondo Moreno Friginals (MF) 235/45/7).

⁵³ Martínez-Fernández, *Torn Between Empires*, p.87.

⁵⁴ Letter of Storey, Spalding & Co. in liquidation to Baring Brothers & Co., Havana, 5th August 1852 (BA, HC 4.6.10, No.91).

⁵⁵ Martínez-Fernández, *Torn Between Empires*, p.97.

⁵⁶ Muñoz del Monte in Porter, *Industrial Cuba*, pp.295-7.

⁵⁷ Iglesias, *Del ingenio al central*; Guerra, *Azúcar y población*.

⁵⁸ Dye, *Cuban Sugar*, p.12.

⁵⁹ Abbot Reynal, cited in Maturin Murray Ballou, *Due South; or, Cuba, Past and Present*, Cambridge, Mass., 1891, p.112.

⁶⁰ Henry Strouder’s proposal for trade in Havana, 1830 (BA, HC 4.6.1, Nos.4-5).

century for trading routes running both from North to South, and from Europe and Africa into the Americas. The Western half of the island was of particular importance in such officially sponsored commercial networks, which developed further in the eighteenth century with the operations of the South Sea Company. However, despite boosts given by the 1762 occupation of Havana by the British, and the liberalising reforms of Carlos III, progress remained slow. Official protectionism ensured that the promotion of transnational trade was focused upon the movement of contraband, in which Eastern Cuba had for long been prominent.⁶¹ So central did this become to the island's history that it prompted the Cuban historian Portel Vilá to describe smuggling as "the first national industry".⁶²

By the mid-nineteenth century, Cuba was becoming an important market in her own right, and had a growing importance within such commercial networks. In the first decade of the nineteenth century, Cuba exported an average of 9 million dollars worth of goods each year, and received 6 million in imports.⁶³ By 1830, the total trade movement of the island was worth around 25 million dollars, roughly evenly divided between exports (principally sugar, tobacco and coffee) and imports.⁶⁴ This had risen to around 60 million by the 1850s, and 140 million in the 1890s.⁶⁵

Table 2 - Value of Cuban exports, 1827-46

(Source: Marrero, *Cuba*, Vol.XII, p.115)

	Total Value (\$ 000)	% of Total
Sugar & derivatives	196,472	64.10%
Coffee	37,909	12.35%
Tobacco	33,224	10.84%
Copper	24,652	8.03%
Others	14,361	4.68%

As Table 2 shows, Cuban exports were overwhelmingly dominated by sugar, and its various derivatives (including rum). Coffee and tobacco continued to play a

⁶¹ Ely, *Cuando reinaba...*, pp.37-54; Gaspar Jorge García Gallo, 'La evolución económica- el contrabando y la ganadería - comienzos de la industria azucarera', *Cuadernos de Historia Habanera*, No.10, 1937, pp.114-6.

⁶² Portell Vilá, *Historia de Cuba*, p.33.

⁶³ Nadia Fernández de Pinedo Echevarría, *Las balanzas del comercio exterior de La Habana, 1803-1807*, Bilbao: Universidad del País Vasco, 2000, p.25.

⁶⁴ Strouder, 1830 (BA, HC 4.6.1, Nos.4-5).

⁶⁵ Goizueta-Mimo, *Bitter Cuban Sugar*, p.81.

significant role, though increasingly overshadowed by the cane. Apart from copper (mined from the mid-1830s in El Cobre near Santiago de Cuba, principally by British mining companies), no other product figured prominently in Cuba's export trade.⁶⁶

According to Henry Strouder (a British merchant who had been trading in Cuba since 1812), the quantity of imports into Cuba grew because of the wealthy population, the lack of any manufacturing industry, and "the waste inherent in a tropical climate".⁶⁷ Foods, "to supply the wants occasioned by the drought and hurricane";⁶⁸ and a whole range of consumer products had to be brought into the country from elsewhere. As can be seen from Table 3, these were what dominated Cuba's import trade. Of particular value amongst the other articles were steam engines, railway locomotives and sugar mills, all of which required a source of combustion, at a time when deforestation was removing the ready supply of wood. As a result, by 1860 92,000 tons of mineral coal were imported every year.⁶⁹

Table 3 - Composition by value of Cuban imports, 1827-52

(Source: Marrero, *Cuba*, Vol.XII, p.156)

	1827-46 (%)	1851-52 (%)
Food stuffs	41.66%	41.81%
Clothes, fabrics & shoes	27.66%	23.91%
Metals	8.81%	6.32%
Other articles	21.87%	27.96%

It was increasingly recognised that "the United States regard with a covetous eye this magnificent Island, and look upon its falling to their lot at some not very distant day, as a thing to happen in the natural course of events".⁷⁰ While economically Britain was coming to dominate much of South America,⁷¹ the United States treated the Caribbean as their rightful domain, regardless of the actual political balance of colonial

⁶⁶ Marrero, *Cuba*, Vol.XII, p.115.

⁶⁷ Strouder, 1830 (BA, HC 4.6.1, Nos.4-5).

⁶⁸ 'Commerce of the Island of Cuba, in 1844', in *Merchant's Magazine*, October 1845. See also Louis A. Pérez, *Winds of Change: Hurricanes and the transformation of nineteenth-century Cuba*, Chapel Hill & London: University of North Carolina Press, 2001, on the far-reaching impact that hurricanes had upon the island's history.

⁶⁹ Martínez-Fernández, *Torn Between Empires*, p.80.

⁷⁰ Letter from D. R. Clarke to Earl Russell, 20th November, 1840 (PRO, Colonial Office (CO) 318/149).

⁷¹ Miller, *Britain and Latin America*; Butel, *The Atlantic*, p.221.

power in the region. From the late eighteenth century, North American independence had played an important part in the development of Cuba's trade, both officially sanctioned and illicit.⁷² US-Cuban commercial relations benefited from the protectionist measures introduced by Britain in the early nineteenth century, in an attempt to protect her sugar colonies. Since this occurred at the same time as Spain was reducing restrictions on Cuba's trade, North American merchants were able to focus their energies there.⁷³ As free trade developed during the nineteenth century, the United States was considerably better placed than its European rivals to take advantage of the ending of commercial monopolies.⁷⁴ One has only to look at the numbers of ships trading with Cuba, at any time during the period, to see just how important the North American trade was becoming. For example, in the first half of 1846, 237 of the 360 ships entering Havana were North American, representing 70% of the total tonnage. Of the rest, 64 were Spanish and 28 British.⁷⁵ By 1840, half of all Latin American imports in the United States came from Cuba, which had become the their third largest trading partner after Britain and France; and the island received 43% of all United States exports to Latin America.⁷⁶

Although it was clear that the United States was moving towards domination of Cuba's trade,⁷⁷ even by 1868 this was still far from secured, and the mid-nineteenth century period was the most transnational of Cuba's history. Merchandise would arrive in the island both through direct national exportation, and by circuitous routes that were defined by the commercial networks. In his annual trade report to the British government in 1841, the British Consul at Havana noted:

[N]othing is more common than for goods of British origin to arrive here from the United States and even from ports on the continent of Europe. India Goods, such as shawls, handkerchiefs, and crapes [sic] arrive very frequently by way of the neighbouring continent as well as from England; and nothing is more common than for French and German goods to be brought here by English vessels and from English ports.⁷⁸

⁷² Ely, *Cuando reinaba...*, p.56.

⁷³ Ely, *Cuando reinaba...*, pp.67-8.

⁷⁴ Butel, *The Atlantic*, p.216.

⁷⁵ *Diario de la Marina*, 1st July 1846.

⁷⁶ Martínez-Fernández, *Torn Between Empires*, p.12.

⁷⁷ Louis A. Pérez, Jr., 'Cuba and the United States : Origins and Antecedents of Relations, 1760s-1860s', *Cuban Studies*, 21 (1991), pp.57-82.

⁷⁸ Trade report from Turnbull to Palmerston, Havana, 27th July 1841 (PRO, FO 72/585, No.63).

Previously Spain had tried to enforce its monopoly on the island's commerce, but by 1818 the "island extorted the privilege ...of exporting its products to whatever country seemed most advantageous for its commerce, and of opening its ports to strangers," giving rise to an ironically liberal commercial environment in Cuba, where, it was claimed, "free trade principles ...were carried into practical effect ...before they were recognised in any European country".⁷⁹ Although the US share of Cuba's sugar exports rose from 24% in 1837 to 54% in 1868, most of this increase was at the expense of Spain, with other Atlantic economies likewise increasing their share. Britain jumped from 6% to 22%, and France more modestly from 5% to 9%. It was not until after 1868 that the United States began its rapid monopolisation of Cuba's exports, taking almost all her sugar by the end of the century.⁸⁰

Thus in 1839, the British-born merchant Benjamin Barden was boasting how:

the Trade of the Port of Matanzas ...has greatly increased, and is ...becoming of more Importance as regards British Commerce; its Population, comprising many British subjects, is rapidly enlarging; and the number of British vessels which import there annually from Great Britain, the Manufactories and Productions of the Mother Country and from Her Majesty's North American Provinces the products of those Colonies and of their Fisheries, has become very considerable, with every prospect of continued Extension.⁸¹

In 1859, the British Consul was still able to claim that:

British manufactures continue to occupy the pre-eminent position to which, by their superior quality and cheapness they have attained, and their consumption here is perhaps greater in proportion to the number of inhabitants than it is anywhere else.⁸²

While it might have been that "by the mid-1850s ...the United States was the single largest trading partner of the Spanish Caribbean",⁸³ in 1869 Cuba's range of trading partners continued to be wide.⁸⁴

⁷⁹ Richard Robert Madden, *The Island of Cuba: its resources, progress, and prospects, considered in relation especially to the influence of its prosperity on the interests of the British West India Colonies*, London: Charles Gilpin, 1849, p.50.

⁸⁰ Moreno Fragnals, *El Ingenio*, Vol.3, pp.75-7; Fernández, *Encumbered Cuba*.

⁸¹ Memorial from Benjamin William Barden to Palmerston, Matanzas, 1839 (PRO, FO 72/538).

⁸² Trade report from Crawford to Russell, Havana, 7th January 1860 (PRO, FO 72/989, No.1).

⁸³ Martínez-Fernández, *Torn Between Empires*, p.80.

⁸⁴ Relative proportion of commerce with Cuba: USA 36%; England 23%; Spain 19%; France 8%; Germany, Holland & Belgium 7%; Spanish America 4%; Denmark, Sweden, Italy, Norway 2%; Austria, Russia, Portugal 0.15%; China, Río Congo, San Domingo 0.04% (from *The Cuban Question and American Policy in the light of common sense*, 1869, p.16).

The mid-nineteenth century was also a period in which communications were greatly improving, pulling the Atlantic world closer together, and greatly facilitating the development of commercial networks. In the 1840s, it still took a long time for information to be transmitted, relying as it did on ships to carry letters. This all began to change with the advent of the telegraph, the first line being laid in Cuba in 1851 by the North American Samuel A. Kennedy.⁸⁵ The first international line, between the United States and Havana, was opened in February 1854. The merchant house J. C. Burnham & Co. boasted of being the first to send a message, demonstrating in the process the advantages to be gained, having given “the order to clear the ship in time to save two days more”.⁸⁶ However, it would not be for another ten years that a telegraph service was established between Havana and Santiago de Cuba, so bringing the two extremes of the island into closer communication.⁸⁷ Improved communication with Europe had to wait until 1866, with the completion of the first trans-Atlantic cable.⁸⁸ This fully united the island “with the vast network of telegraphic communication now gradually extending itself over the face of the Globe”.⁸⁹

Foreign merchants in Cuba

Much of Cuba’s developing place within the international commercial networks was being controlled by foreign-born merchants.⁹⁰ While the majority of merchants operating in Cuba were from Spain,⁹¹ there was an important hard core of non-Spanish traders, who dominated much of Cuba’s import and export business, and were highly influential in the development of the island’s connections with Europe and North America.⁹² This was a group that showed little commitment to specific national interests. Although Drake Brothers & Co. was founded by the British émigré James

⁸⁵ Martínez-Fernández, *Torn Between Empires*, p.85.

⁸⁶ Private letter from J. C. Burnham & Co. to Baring Brothers & Co., Havana, 21st February 1854 (BA, HC 4.6.8 (Part 2), Correspondence of J. C. Burnham & Co. (1853-1861), No.141).

⁸⁷ Report for 1865 on Santiago de Cuba and Guantánamo, made by British Vice Consul to Consul General Synge, Santiago de Cuba, 28th April 1865 (PRO, FO 453/9).

⁸⁸ Private letter from J. C. Burnham & Co. to Baring Brothers & Co., Havana, 6th September 1866 (BA, HC 4.6.8 (Part 3), No.315).

⁸⁹ Letter from Crawford to Stanley, 31st December, 1867 (PRO, FO 72/1189, no.3).

⁹⁰ Cuba was by no means unique in this respect: foreign merchant networks have played a crucial part in developing commerce throughout world history (see Curtin, *Cross-Cultural Trade*, p.6, on trade diasporas).

⁹¹ The largest group of foreign merchants were peninsular Spanish, most notably Catalans: “Like an octopus, the Catalan extended his tentacles towards almost all fields of economic activity in the island, except the cultivation and refining of sugar, tasks that he considered most advantageous to leave to others” (Ely, *Cuando reinaba...*, p.317). See also J. G. F. Wurdermann, *Notes on Cuba*, Boston, 1844.

⁹² See Roland T. Ely, *Comerciantes cubanos del siglo XIX*, Havana, 1961.

Drake in the 1790s, they appear to have traded more heavily with Spain, France, Russia and Germany than with Britain.⁹³ In the mid-nineteenth century, in addition to the sons of Drake, the house's partners included a Spaniard, a North American and a Swiss.⁹⁴ Another merchant house with British origins, Brooks & Co. in Santiago de Cuba, was far more orientated towards the United States, with such interests as they had in Britain being looked after for them by their North American agents;⁹⁵ and with the company's founder, Thomas Brooks, serving as US Consul in the 1850s.⁹⁶ As a further demonstration of the transnational identity of this group, when Brooks retired it was in France that he decided to settle. When an offshoot of Brooks & Co. established itself in Havana in 1862, they could boast references not just from their parent company in Santiago, but also from houses in London, Bordeaux, Paris, New York and Philadelphia.⁹⁷ Similarly Merentie Brothers & Co., as well as having a branch in Santiago de Cuba, had branches established in France and Britain.⁹⁸ The extent of this transnationalism can be seen in the fact that in 1865, of the ten British Vice Consuls, generally selected from the resident merchant community in Cuba, only three were actually British. Of the rest, two were German, two North American, one Dutch, one from the British West Indies, and one Cuban.⁹⁹

There were reasons why foreign, non-Spanish merchants should have played a prominent role in Cuba at this time. Spanish merchants were considered to be very solid, due to their carefully invested capital, making it recommendable for a foreign merchant seeking to establish himself to find "some Spanish partner of influence".¹⁰⁰ But "these people are not adventurers abroad nor speculators, but they ...purchase merely to meet the wants of their regular customers", being "generally a set of men of

⁹³ MC, MF, 235/1/24.

⁹⁴ Ely, *Comerciantes cubanos*, pp.83-140.

⁹⁵ MC, MF, 235/18/8.

⁹⁶ MC, MF, 235/42/1.

⁹⁷ Brooks, Douglas & Co. to Moses Taylor & Co., Havana, 1st October 1862 (MC, MF, 235/4/1).

⁹⁸ Letter from Henry Vendryes to Turnbull, Havana, 16th September 1841 (ANC, Gobierno Superior Civil (GSC), 845/28383).

⁹⁹ Dispatch No.1 from Robert Bunch to Earl Russell, Havana, 1st January 1865 (PRO, FO 72/1108). The appointment of Consuls to represent national commercial interests was in itself an important means by which economic/commercial dominance by metropolitan powers became established. Britain established regular consular service in 1825, and France in 1833. "By the mid-nineteenth century, the consular corps formed a network that could act pervasively to create an internationally recognized body of commercial law and custom." It was an instrument of "commercial Westernization", "prime agents of informal empire" (Curtin, *Cross-Cultural Trade*, p.246).

¹⁰⁰ Letter from George Knight to Joshua Bates, Havana, 5th June 1832 (BA, HC 4.6.2 (Part 1), Letters of George Knight, No.26).

business by routine.” Hence it seems that foreign merchants brought with them a spirit of speculation into Cuban commerce that was otherwise lacking.¹⁰¹

It was a relatively simple matter for these merchants to exploit the state of affairs in the island to make rapid fortunes. One scam was to take advantage of the time taken for bills drawn to reach their destination. It might take several months for a bill to reach England, having travelled a roundabout route through Jamaica and Spain. Henry Strouder admitted that his “interest account has been often benefited by the circuitous manner my drafts travelled”.¹⁰² Often as a result of their good contacts with merchants and manufacturers in Europe and North America, these traders were able to claim that they could “execute orders more advantageously”;¹⁰³ or else gain advantage through their superior knowledge of modern commercial methods.¹⁰⁴ Hence although Adot, Spalding & Co. had “no property outside of their business capital which is supposed not to be large”, they were much sought after, and had a very good credit rating both in Cuba and the United States, where they had “many good friends”.¹⁰⁵

These were the merchants through whom the Atlantic commercial networks reached into Cuba. It was common for partnerships to include one member living in the island, with the other in another country. Thus the dry goods business of Tennant & Clark was made up of Tennant in Havana, and Clark in England;¹⁰⁶ and the Matanzas-based merchant Florentio Huertas teamed up with James Baring in Wiesbaden.¹⁰⁷ Where they did not have a formal partner, they allied themselves closely with particular individuals, such as Henry Coit in the United States, who came to specialise in acting as agent on behalf of Cuban-based merchants, in combination with the merchant bankers Moses Taylor of New York.¹⁰⁸ Sugar found its way out of, and imports into the estate of the North American planter, Henry Emerson, through such a network of agents: Thompson & Morris, in the nearby market town of Sagua la

¹⁰¹ Strouder, 1830 (BA, HC 4.6.1, Nos.4-5).

¹⁰² Strouder, 1830 (BA, HC 4.6.1, Nos.4-5).

¹⁰³ Letter from John Walker to James Baring & Co. (Matanzas), Greenock, 13th January 1865 (BA, HC 4.6.12, No.141).

¹⁰⁴ Letter from Francisco P. Hornillos to Messrs Collman, Lambert & Co. (London), Havana, 28th February 1830 (BA, HC 4.6.1, No.1).

¹⁰⁵ Private letter from J. C. Burnham & Co. to Baring Brothers & Co., Havana, 10th January 1866 (BA, HC 4.6.8 (Part 3), No.307).

¹⁰⁶ Letter from Morales to Coit, Havana, 6th October 1843 (BNJM, Lobo 113/1).

¹⁰⁷ BA, HC 4.6.12.

¹⁰⁸ BNJM, Lobo 113.

Grande; Drake Brothers in Havana; and Moses Taylor & Co. in New York,¹⁰⁹ who were selling Emerson's sugar through yet another merchant house, Minturn & Co.¹¹⁰

It was through these commercial networks that Cuba's import and export trade was carried out. Merchant houses like Drake Brothers opened up trading routes that ranged as far afield as New York, Spain, Britain, Belgium, Trieste or St Petersburg.¹¹¹ They actively encouraged leading Cuban planters to consign their crops through such foreign merchant bankers as Baring Brothers in London,¹¹² or Moses Taylor in New York. These merchant bankers would, in turn, help to ensure the penetration of Cuban products into more distant markets, such as when the Havana-based merchants Guillermin & Mariategui were able to sell Cuban sugars in Russia thanks to the assistance of Joshua Bates of Baring Brothers.¹¹³

There was a more sinister side to the commercial network's operations. While the British government and their representatives in Cuba were trying to suppress slavery, there was evidence of British involvement in the slave trade. In August 1841, a ship arrived in Havana from the Clyde, which had been damaged at sea. Amongst her goods were many items that were notoriously used by the African slave traders. It seems that the merchant house Villoldo & Wardrop, of which partnership the latter was based in Glasgow, were heavily involved in selling such merchandise to kit out slave trading ships.¹¹⁴ Earlier that same year, another ship, the 'Antonio' – built in Plymouth, captained by an Englishman, but controlled by an unidentified Spaniard who was on board – arrived in Havana. The ship had been sold to Fernandez & Co. of Havana by Rabone Brothers of Birmingham, the former having "the reputation of being engaged in the African Slave Trade". On inspection the ship was revealed clearly to have been designed for slaving purposes.¹¹⁵

¹⁰⁹ Ely, *Cuando reinaba...*, Chapter 4.

¹¹⁰ Accounts of La Palma estate, 1842-1859 (Bodleian Library (BL), Henry Ezequiel Emerson Papers (HEE), MSS Span c.2a).

¹¹¹ Ely, *Comerciantes cubanos*, pp.83-140.

¹¹² Letter from J. C. Burnham & Co. to Baring Brothers & Co., Havana, 27th March 1848 (BA, HC 4.6.8 (Part 1), No.19).

¹¹³ Letters from A. Guillermin to Joshua Bates, St Petersburg, 24th September 1842; and Hamburg, 9th October 1842; and Letter from Messrs Streglitz & Co. to A Guillermin, St Petersburg, 30th September 1842 (BA, HC 4.6.2 (Part 2), Nos.216-128).

¹¹⁴ Letter from Turnbull to Palmerston, Havana, 2nd August 1841 (PRO, FO 84/358, No.67).

¹¹⁵ Letter from Turnbull to Palmerston, Havana, 24th May 1841 (PRO, FO 84/357, No.54).

It was because of the commercial network that much merchandise arrived in Cuba. The London bankers Frederick Huth & Co. were obtaining and exporting British produce, such as gunpowder, machinery and iron, on behalf both of Cuban-based merchants and planters, at the same time as providing a channel for their sugar.¹¹⁶ Although Goicouria & Son were able to place their order for iron directly with Thompson & Forman of London, they relied on the network for the contact to be made for them, to ensure delivery of the cargo to Cárdenas, and also to make payments for this through Drake Brothers, who were Thompson & Forman's agents in Havana.¹¹⁷ Such chains were not merely bilateral, but revealed the transnational nature of the networks, as when Brooks & Co. required the importation of iron, which they ordered from London, not directly, but through the agency of Moses Taylor & Co. in New York.¹¹⁸

The commercial network gave Cuban merchants and planters access to merchandise that would otherwise be unobtainable in the island. On one occasion Charles Roome, of the Manhattan Gas Light Co, informed Moses Taylor & Co. that George Wright & Co. of Liverpool would be able to "forward goods from Birmingham [and] other places to Havana", and that, if so requested, would "obtain ...admission to any manufactory in England" for Luis Felipe Apezteguia.¹¹⁹ It was through the Liverpool-based Spanish merchants F. de Oleaga & Co. that José Pérez of Cienfuegos received an order of beer, tiles, spades and bricks;¹²⁰ and in 1863, Manuel Blanco was able to obtain some fine, British porcelain chamber pots through Rabone Brothers of Birmingham.¹²¹ The Cuban elite would often seek to obtain their luxuries through this network. Tea arrived in Santiago de Cuba through the orders placed by Brooks & Co. with Moses Taylor in New York;¹²² and by the same route, the mother of one of Brooks

¹¹⁶ Journal, 1843 (University College London (UCL), Frederick Huth Papers (FH)).

¹¹⁷ Agreement between Thompson & Forman and Goicouria & Son, London, 10th February 1843 (Guildhall Library (GL), Frederick Huth papers (FH), 10700, Box 5, D161).

¹¹⁸ Letter from Brooks & Co. to Moses Taylor & Co., Santiago de Cuba, 20th February 1857 (MC, MF, 235/50/7).

¹¹⁹ Letter from Charles Roome to Moses Taylor & Co., New York, 10th August 1859 (BNJM, Lobo No.151).

¹²⁰ Letter from F. de Oleaga & Co. to José Pérez & Co., Liverpool, 1st October 1855 (BNJM, Lobo No.68).

¹²¹ Observations made by Rabone Brothers & Co., 1863 (BNJM, Lobo No.1).

¹²² Letter from T. Brooks & Co. to Moses Taylor & Co., Santiago de Cuba, 18th June 1852 (MC, MF, 235/33/2).

& Co.'s clients was able to obtain "two ...white feather fans, ornamented with Birds, which are made by the Indians at Niagara".¹²³

Much of the iron that was being purchased through the agency of bankers such as Frederick Huth & Co. in London, and merchants such as W. W. Mason & Sons in Birmingham, was destined for the construction of the rapidly growing Cuban rail system.¹²⁴ This important development depended upon the commercial network, and railway companies appointed agents in Britain and the United States to obtain the equipment and materials that they needed.¹²⁵ The railways quickly became far more dependent upon foreign bankers than this, as investors were sought to fund the projects. In 1840, George Knight, despite his own bankruptcy and debt to Baring Brothers, was entrusted by a Cuban railroad company to ask Baring for a loan to pay for the construction of a further 24 miles.¹²⁶ Such debts deepened with time. In 1859, Baring Brothers (who were acting as agents in London for several of the Cuban railway companies) were requested for a further loan by the Havana Railroad Company.¹²⁷

Railways were not the only Cuban capital project that found itself dependent upon these foreign investors. From the 1830s, Cuban copper mining was carried out principally with English capital.¹²⁸ The Royal Copper Mines of Cobre Company, responsible for some of the richest veins near Santiago de Cuba, was established in London in 1835 by John Hardy. Although the Cuban planter and impresario Joaquín de Arrieta was amongst the shareholders, he held less than 10% of the shares, the rest of which were held by an assortment of British investors.¹²⁹ The Royal Santiago Copper Mines Company was likewise founded in 1838, entirely with British and

¹²³ Letter from Brooks & Co. to Moses Taylor & Co., Santiago de Cuba, 13th October 1860 (MC, MF, 235/41/1).

¹²⁴ Letter from Huth & Co. to Goicouria & Son, London, 13th January 1840 (UCL, FH, Vol.172).

¹²⁵ See for example Matanzas & Sabanilla Railroad Company, prospectus for loan (UCL, J. Henry Schroder & Co. papers(JHS)); and letter from Guillermin to Bates, Bayonne, 8th July 1849 (BA, HC 4.6.2, No.257). There is a detailed description of foreign investment, and eventual control, of the Cuban railways in Zanetti & García, *Sugar and Railroads*.

¹²⁶ Letter from George Knight to Joshua Bates, Havana, 11th December 1840 (BA, HC 4.6.2 (Part 1), Nos.198-199).

¹²⁷ Letter from José Antonio Echevarría to Baring Brothers & Co., London, 25th November 1859 (BA, HC 4.6.11, No.139).

¹²⁸ Letter from British Consul to Earl of Aberdeen, Santiago de Cuba, 22nd July 1842 (PRO, FO 453/4).

¹²⁹ Deed of settlement, Company of the Proprietors of the Royal Copper Mines of Cobre, London, 13th July 1835 (PRO, Board of Trade (BT), 31/1310/3371).

French capital, and using the Bank of England as bankers;¹³⁰ and when the Royal Consolidated Copper Mines of San Fernando Cuba Limited was established by Arrieta in 1859 to exploit mineral resources near Santa Clara, the company was registered in London, and three quarters of the shares were British-held.¹³¹

Rise to power of the merchant banks

In 1830, no more than four or five merchant houses in Havana had access to blank credits in Europe, and those that had them were non-Spanish, since the Spanish merchants considered such a system “as derogatory to their standing”.¹³² Initially there were also no banks operating directly in the island, and no system of government securities.¹³³ It was partly as a result of this that the Cuban economy quickly became so dependent upon the foreign-led commercial networks, and in debt to foreign bankers. The Cuban financial system did gradually develop through the mid-nineteenth century, such that by 1857 there was one principal bank (the *Banco Español*) with deposit and discount facilities, empowered to issue bank notes; with several other banks in operation.¹³⁴ However, with the exception of the joint stock banks established in Matanzas, Cárdenas and Santiago de Cuba, all financial services continued to be concentrated in the capital;¹³⁵ and the banks often depended upon their being underwritten by foreign bankers.¹³⁶

These foreign bankers were increasingly underpinning most of Cuba’s commerce and economy, and the door was opened to them by the foreign merchant community.¹³⁷ In 1832, George Knight proposed that Baring Brothers become his

¹³⁰ *The Mining Journal*, 24th March 1838.

¹³¹ Memorandum of Association of Royal Consolidated Copper Mines of San Fernando Cuba Limited, 28th July 1856 (PRO, BT 41/601/3311).

¹³² Strouder, 1830 (BA, HC 4.6.1, Nos.4-5).

¹³³ Hornillos to Colman, 28th February 1830 (BA, HC 4.6.1, No.1). Commercial banks only began to appear in Cuba in the 1850s. As a result, landowners were obliged to turn to merchants for capital (Ely, *Cuando reinaba...*, p.300).

¹³⁴ Private letter from John Barnes to Baring Brothers & Co., Havana, 10th July 1857 (BA, HC 4.6.8 (Part 2), No.185).

¹³⁵ Letter from Crawford to Stanley, 31st December 1867 (PRO, FO 72/1189, No.3).

¹³⁶ Private letter of J C Burnham & Co. to Baring Brothers & Co., Havana, 7th December 1867 (BA, HC 4.6.8 (Part 3), No.333).

¹³⁷ Cuba’s exports were generally effected by speculators, sometimes by European refiners, and only rarely by the landowners themselves (though the most powerful planters were able to sell directly through Moses Taylor, *et al.*). See *Hunt’s Merchant’s Magazine and Commercial Review* (New York), Vol VII, Oct 1842, p.330.

sleeping partners.¹³⁸ Though he was keen for them to leave him freely to manage his own affairs in the island, this enabled the merchant bankers to gain a foothold in Cuba, which would gradually turn into a stranglehold. When Knight ran into financial difficulties a few years later, he was forced into bankruptcy by Barings, who readily extended their credit facilities to Knight's successor, Luis Mariategui.¹³⁹ They gradually extended this credit, so drawing the latter deeper into their clutches.¹⁴⁰ Barings also gave a £5000 credit to J. C. Burnham & Co. in 1848, despite the latter expressing their unhappiness about finding themselves so much in debt to the bankers.¹⁴¹ Nevertheless, a few months later a further credit of £10,000 was approved.¹⁴²

Such credits were soon being made available not just to railway developers and merchants, but also to Cuban planters. As Roland Ely notes:

Credit was the life blood of the island's system for the commercialization of sugar. Without improvements in production and without long-term loans, few planters would have been in a condition to feed and clothe their workers, buy agricultural implements and necessary machines, cultivate new land or satisfy their personal pleasures.¹⁴³

In 1839, Wright, Brooks & Co. obtained credit from Barings for investments they were making in coffee production in the East of the island.¹⁴⁴ In 1850, Storey, Spalding & Co. were arranging a mortgage of \$250,000 on behalf of the North American planter Horrace Gray Jr., secured on his Arroyo sugar estate.¹⁴⁵ Even the wealthiest of planters found themselves having recourse to such credits,¹⁴⁶ although they were in a position

¹³⁸ Letter of George Knight to Joshua Bates, Havana, 5th June 1832 (BA, HC 4.6.2 (Part 1), No.26).

¹³⁹ Letter from L. Mariategui to Baring Brothers & Co., Havana, 15th January 1842 (BA, HC 4.6.2 (Part 2), No.213a).

¹⁴⁰ Letter from Mariategui to Joshua Bates, London, 8th October 1845 (BA, HC 4.6.2 (Part 2), No.239).

¹⁴¹ Private letter from J. C. Burnham & Co. to Baring Brothers & Co., Havana, 26th February 1848 (BA, HC 4.6.8 (Part 1), No.16).

¹⁴² Letter from J. C. Burnham & Co. to Baring Brothers & Co., Havana, 27th July 1848 (BA, HC 4.6.8 (Part 1), No.21).

¹⁴³ Ely, *Cuando reinaba...*, p.301.

¹⁴⁴ Letter from Wright, Brooks & Co. to Baring Brothers & Co., Santiago de Cuba, 7th January 1839 (Barings Archive, HC 4.6.6, No.294).

¹⁴⁵ Letter from Storey, Spalding & Co. to Baring Brothers & Co., Havana, 30th September 1850 (Barings Archive, HC 4.6.10, No.20).

¹⁴⁶ Private letter of J. C. Burnham & Co. to Baring Brothers & Co., Havana, 6th July 1867 (BA, HC 4.6.8 (Part 3), No.326).

to maintain a relative independence from the merchants through the building of their own railways and warehouses.¹⁴⁷

Dependence upon the bankers was not simply a result of requiring money or credits to carry out their operations. To be connected with banks such as Baring Brothers came to be seen as advantageous for merchant houses in Cuba, since it was taken as proof of the house possessing a high credit rating, and therefore would help them secure more business.¹⁴⁸ Opening an account with Barings helped the company of Guillermin & Mariategui gain “a fair share of the best business done here”:

I feel some confidence that our accounts once opened with you, we shall enjoy that share of liberality & good will which is necessary at the distance at which we are and when we depend chiefly upon your house for the management of our interests in the European markets.¹⁴⁹

In 1865, Baring, Huertas & Co. of Matanzas (one of the partners of which was a young relation of the owners of the bank) depended on the continued support of Baring Brothers to hold on to the sugar business of the big Greenock trading houses, who would otherwise have gone to other Matanzas merchants.¹⁵⁰ Baring Brothers’ influence was even sought to affect British governmental decisions, as when Thomas Brooks canvassed their assistance in securing the appointment of Charles Clarke as British Consul at Santiago de Cuba.¹⁵¹

In 1830, Henry Strouder described the existence of an important difference between Cuba and the British West Indies, in that “the mother country is by no means a creditor of this country”. Cuban landowners were resident in the island, with their sources of funding coming from Havana or Matanzas, which towns had the same importance as London or Liverpool did for the British West Indies. “The proximity of the creditor” gave Cuban planters “a decided advantage as to judicious discriminations”.¹⁵² This was short lived, and as time went by, the foreign bankers demanded an increasing monopoly on Cuban business, to the detriment of the flexible

¹⁴⁷ Ely, *Cuando reinaba...*, p.307.

¹⁴⁸ Letter of George Knight to Baring Brothers & Co., Havana, 25th October 1831 (BA, HC 4.6.2 (Part 1), No.21).

¹⁴⁹ Letter from Guillermin to Bates, Havana, 22nd March 1841 (BA, HC 4.6.2 (Part 2), No.206).

¹⁵⁰ Letter from Florentio Huertas to Thomas Baring, Matanzas, 11th February 1865 (BA, HC 4.6.12, No.142).

¹⁵¹ Letter from Thomas Brooks to Baring Brothers, London, 17th October 1840 (BA, HC 4.6.6, No.295).

¹⁵² Strouder, 1830 (BA, HC 4.6.1, Nos.4-5).

commercial networks hitherto existing. In 1850, J. C. Burnham & Co. did away with their agents in London altogether. Although they did this intending “to keep our matters abroad so much within the sphere of own management”, in practice it meant that their interests from then on were dealt with directly by Baring Brothers.¹⁵³ When George Knight attempted to assert his right to continue to obtain United States credits through his independent contacts there, Barings brought their pressure to bear to prevent this from happening, claiming it put Knight in breach of his contract with them.¹⁵⁴

This level of control also came to be exerted on planters, with the merchants themselves, who had initially been the channel bringing foreign investment into Cuba, now acting as the conduits through which this power was applied. Frederick Huth & Co. used Drake Brothers as their agents in Havana, to collect debts on their behalf;¹⁵⁵ and Luis Mariategui, himself in debt to Barings, worked in Cuba on behalf of the bank to secure their claim on George Knight’s estate, promising “that no effort shall be spared”.¹⁵⁶ This led to their taking hold of a number of mortgages on Cuban estates, previously held by Knight,¹⁵⁷ who while himself getting deeper into debt with Barings, was advancing more money to local planters for the development of their estates.¹⁵⁸

These mortgages became more and more common, “often in the form of loans secured against the earnings of future crops”.¹⁵⁹ Economic crises, or simply a poor crop, would lead to defaults in payments, as a result of which ownership of Cuban plantations began to fall into the hands of foreign bankers. Two-thirds of Cuba’s sugar industry had become mortgaged in this way by the 1860s, with some 95% of estates at least partially so.¹⁶⁰ Their policy was “that of a usurer,” commented the Cuban planter

¹⁵³ Private letter of J. C. Burnham & Co. to Baring Brothers & Co., Havana, 25th September 1850 (BA, HC 4.6.8 (Part 1), No.49).

¹⁵⁴ Letter of George Knight to Baring Brothers & Co., Havana, 25th October 1831 (BA, HC 4.6.2 (Part 1), No.21).

¹⁵⁵ Letter from Frederick Huth & Co. to Valentin de Goicouria & Son, Havana, 1st June 1842 (UCL, FH, Vol.174).

¹⁵⁶ Private letter of Luis Mariategui to Baring Brothers & Co., Havana, 20th January 1843 (BA, HC 4.6.2 (Part 2), No.220).

¹⁵⁷ Letter from De Coninck Spalding & Co. to Baring Brothers & Co., Havana, 5th October 1843 (BA, HC 4.6.7, No.303).

¹⁵⁸ Private letter from George Knight to Baring Brothers & Co., Havana, 30th March 1840 (BA, HC 4.6.2 (Part 1), Nos.93-94).

¹⁵⁹ Pérez, *Winds of Change*, p.96.

¹⁶⁰ Martínez-Fernández, *Torn Between Empires*, p.106 – citing Moreno Fraginals.

Betancourt Cisneros, “who little by little provides means to a youthful fool until he places him on an unrepayable debt, and then proceeds to embargo his real estate”.¹⁶¹ Planters, particularly those of small to middle-sized estates, would thus lose their plantations, administration of which was turned over by the bank to merchant companies resident in Cuba.¹⁶² The banks were not content simply to sit back and receive whatever profits accrued. Baring Brothers regularly sent agents to Cuba to inspect their newly acquired property,¹⁶³ and would continually pressure the merchants representing their interests to ensure “the most rigid economy” on the estates. This helped to push Cuban plantations towards the production of cheaper sugars.¹⁶⁴ All management decisions now had to be approved by them, as for example when the manager of the ‘Arroyo’ plantation requested an increase in his salary. The Havana-based merchants Storey, Spalding & Co., who administered the estate on behalf of Baring Brothers, had to make representations to the bank in London for this to be approved.¹⁶⁵

It has been argued that by the mid-nineteenth century, merchants in Cuba had displaced the old Creole landowning class “from the pinnacle of Cuban prosperity”.¹⁶⁶ Some of the wealthiest, in particular those most closely tied to foreign bankers, became landowners in their own right: Tomás Terry, the Morés, José Baró, and the Drakes are notable examples. However, it can be seen that even the foreign-born merchants who played such an important part in opening up Cuba to the wider commercial networks had themselves fallen under the control of the increasingly powerful foreign merchant bankers. As with the planters, they were dependent upon the success of the sugar harvest, and its trade, for their own survival.¹⁶⁷ Having started as innovators, they quickly took on the role of debt collectors for the banks. This ensured that not just Cuban trade, but increasingly land ownership and production fell under the control of the banks. This would come to be exacerbated after 1868, when the Cuban wars of

¹⁶¹ Quoted by Martínez-Fernández, *Torn Between Empires*, p.128.

¹⁶² Guerra, *Azúcar y población*.

¹⁶³ Letter of Storey, Spalding & Co. in liquidation to Baring Brothers & Co., Havana, 19th July 1852 (BA, HC 4.6.10, No.88).

¹⁶⁴ Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 14th December 1851 (BA, HC 4.6.10, No.67).

¹⁶⁵ Letter from Storey, Spalding & Co. to Baring Brothers & Co., Havana, 22nd August 1850 (BA, HC 4.6.10, No.16).

¹⁶⁶ Anton L. Allahar, ‘Slaves, Slave Merchants and Slave Owners in 19th Century Cuba’, *Caribbean Studies* 21:1-2, 1988, p.174.

¹⁶⁷ Ely, *Cuando reinaba...*, p.320.

independence led to a far greater weakening of the position of the Cuban landowners, and a far greater penetration of foreign capital and ownership.¹⁶⁸

Steam and machinery¹⁶⁹

In 1842, the former British Consul at Havana, David Turnbull, boasted that he had “been perfectly successful in making sugar, in crystallizing it, and in afterwards refining it into loaves of an excellent quality” using “no better implements than those supplied by a common batterie de cuisine [sic]”. His intention was to recommend “the encouragement of industry” in Africa as a means of combating the slave trade, pointing to the low cost of the machinery used by small sugar producers in Florida, “whose whole manufacturing apparatus has not cost more than one hundred dollars”.¹⁷⁰ While in principle Turnbull’s claim may have been true, nevertheless it was far from the reality of sugar production in the nineteenth century, in which plantations were, even before the advent of steam technology, “winning recognition as an unusual combination of agricultural and industrial forms”.¹⁷¹ The cultivation of the cane fields continued to be relatively unindustrialized, and required the intensive manual labour of armies of workers, so providing the principal stimulus for the African slave trade. But at least some processing was required to turn the sugar cane into an exportable form. First the raw cane had to be crushed, to extract its juice. The liquid passed through a number of processes to remove impurities, to crystallise the sugar, and finally to purge this sugar of the remaining molasses.¹⁷² In the nineteenth century, each of these steps underwent important technological developments, all aimed at increasing the efficiency, quantity and quality of production. In 1852, a report was circulated in Havana that commented on how:

France, England, Brazil and all the sugar nations are every day appearing with new machines, new apparatuses, and new methods for the improvement and perfection of the elaboration of sugar,

¹⁶⁸ This same pattern was also followed with the Cuban railway companies, which had borrowed so heavily to build in the first place that not only did they never succeed in getting out of debt, but increasingly had to default on their payments, as a result of which the banks assumed administrative control. See Zanetti & García, *Sugar and Railroads*.

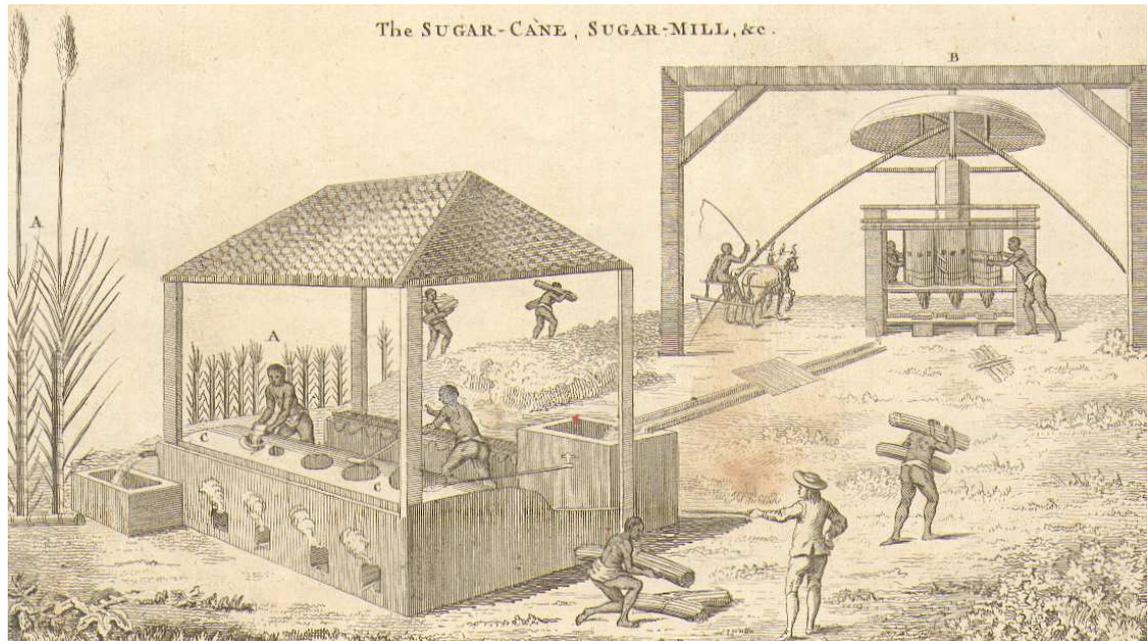
¹⁶⁹ My thanks to David Curry for providing me with the benefit of his engineering expertise, and research into the development of sugar technology, in the development of this section.

¹⁷⁰ Letter from Turnbull to Lord Stanley, HMS Romney, Havana, 30th June 1842 (PRO, CO 318/157, Slave Trade 1587).

¹⁷¹ Mintz, *Sweetness and Power*, p.48.

¹⁷² See Appendix B. For detailed descriptions of the internal workings of sugar plantations and mills, see Moreno Fragnals, *El Ingenio*. Also Goizueta-Mimo, *Bitter Cuban Sugar*, pp. 139-48.

making tests with different materials and even finding which gives the best result.¹⁷³



II - A pre-industrial, animal-powered sugar mill
(Engraving, source unknown)

The modernisation of Cuban sugar

The earliest sugar mills were powered by animals, wind or water. In Santo Domingo, most plantations used the latter.¹⁷⁴ However, animal and wind powered systems lacked capacity, and the lack of adequate streams in Cuba made this difficult to apply in much of the island.¹⁷⁵ Steam power had become a major factor in the continuing industrial revolution in Europe, and became by far the most important development in Cuban sugar production. It enabled the use of larger, heavier milling equipment, and faster and more efficient processing of the cane juice.¹⁷⁶ Steam also powered the railroad locomotives, providing the fast and reliable transport for the mills without which any amount of increase in production would have been in vain.¹⁷⁷

¹⁷³ José Florencio de Sierra, *Exposición de Agricultura para mejorar el modo que hasta hoy usan los Fabricantes de Azúcar de la Isla de Cuba*, Havana, 1852 (manuscript) (ANC, GSC, 1115/41448) - my translation.

¹⁷⁴ Ely, *Cuando reinaba...*, p.53.

¹⁷⁵ Effective waterpower requires either a high head, or a large volume.

¹⁷⁶ Martínez-Fernández, *Torn Between Empires*, p.98.

¹⁷⁷ Moreno Fragnals, *El Ingenio*, Vol.1, p.148.

Although there is some evidence of steam engines being used on Jamaican plantations as early as 1768,¹⁷⁸ the first mention of the application of a steam engine to a sugar mill in Cuba was not until 1795.¹⁷⁹ In 1796, Joaquín de Santa Cruz, bought an engine from London, and put this into operation on his 'Ceibabo' estate.¹⁸⁰ The experiment was not altogether successful, but it helped to stimulate further interest in the island in the use of steam technology.¹⁸¹ The first time the entire harvest of an estate was carried out using a steam-driven mill was in 1819, by Pedro Diago,¹⁸² and by the 1830s most important plantations were following suit.¹⁸³ In 1841, David Turnbull was able to comment that:

the great success which has attended the application of Capital, Machinery and skill to the agriculture of this Island, within the last five years, has a strong tendency to stimulate ...the farther application of these means of production.¹⁸⁴

By the end of the 1840s large amounts of capital were being invested by Cuban planters in machines. Typical steam engines might cost around \$10,000, and require an annual outlay of \$500 for maintenance.¹⁸⁵ A vacuum pan, with all necessary accessories (steam clarifiers, filters, charcoal burners etcetera), could cost a planter \$32,000.¹⁸⁶ In many cases the total costs were considerably higher, far beyond the means of many, and this tended to increase through the period as more advances were made. By 1873, the British Consul at Havana was reporting:

The machinery and engines on the Cuban estates are generally of an expensive and superior character. On some the 'works' could not, with machinery, have cost less than from £25,000 to £30,000 sterling, on one estate £40,000 sterling. Thus, immense capital is invested solely in the 'manufacture'; and sugar, far superior in quality to the 'muscavado' of Jamaica and Demerara, is made here on the estates themselves. On some lands steam ploughs are also in use, and everything has been done, at vast cost, to supersede or supplement manual labour.¹⁸⁷

¹⁷⁸ Veront M. Satchell, 'The early use of steam power in the Jamaican sugar industry, 1768-1810', *Transactions*, 67 (1995-96), pp.221-31.

¹⁷⁹ 'Proyecto sobre mejorar la máquina de exprimir caña', BNJM, C.M.Sociedad Económica 15/21.

¹⁸⁰ BNJM, C.M.Pérez Beato, Legajo 12; Marrero, *Cuba*, Vol. X, pp.158-9.

¹⁸¹ Moreno Fragnals, *El Ingenio*, Vol.1, p.87.

¹⁸² Portell Vilá, *Historia de Cuba*, Vol.1, p.199.

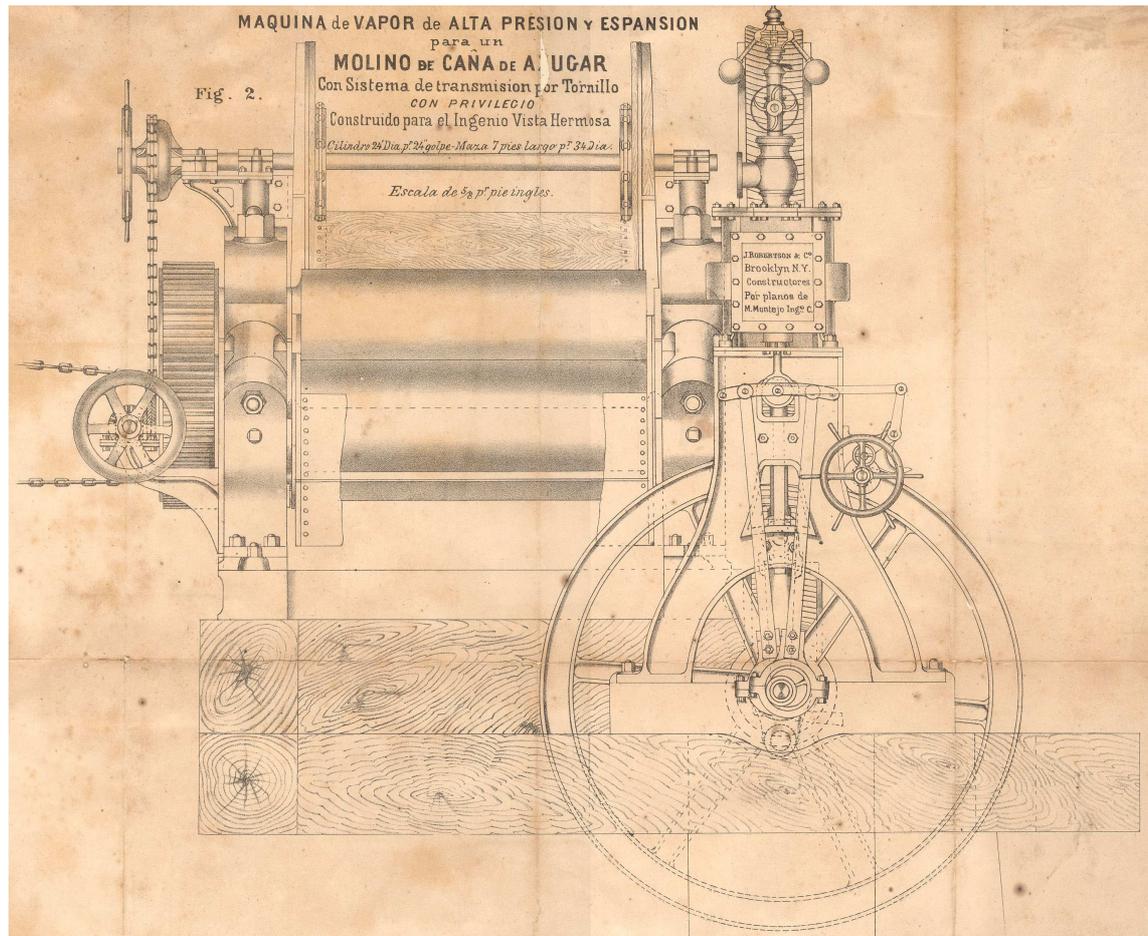
¹⁸³ Jacobo de la Pezuela y Lobo, *Diccionario Geográfico, Estadístico, Histórico de la Isla de Cuba*, Vol.1, Madrid: Imprenta del Establecimiento de Mellado, 1863, p.58.

¹⁸⁴ Letter from Turnbull to Palmerston, 27th July 1841 (PRO, FO 72/585, No.63).

¹⁸⁵ Report from William Smith (PRO, FO 72/760, No.1).

¹⁸⁶ J. A. Leon, *On Sugar Cultivation in Louisiana, Cuba and the British Possessions by an European and Colonial Sugar Manufacturer*, London: P. Oliver, 1848, p.17.

¹⁸⁷ Extract from dispatch of Consul General Dunlop, in *Greenock Sugar Trade Review*, 2nd April 1873.



III - Sugar Mill (built by J. Robertson & Co. of Brooklyn, New York), installed on Vista Hermosa estate (date unknown)

(Source : ANC, Mapas y Planos (MP), Privilegios 17197, Hoja 1)

At times planters invested in rather more machinery than their needs perhaps warranted. This extravagance was commented upon by members of the *Sociedad Económica* in Havana:

We must say ...that in recent years we have seen a level of luxury and ostentation which disgracefully has reached all things, and therefore extraordinary expenses have been assumed and capital has been employed that could have been dedicated to greater advantage in the same industry.¹⁸⁸

Although the new steam engine installed on the 'Arroyo' estate in 1850 was more efficient, and required less fuel,¹⁸⁹ it appeared "big enough for a much larger estate".¹⁹⁰

¹⁸⁸ *Memorias de la Sociedad Económica*, Tomo 37 (1848), p.183 - my translation.

¹⁸⁹ Remarks from Adot, Spalding & Co., concerning the Arroyo estate, Havana, 31st August 1853 (BA, HC 4.6.10, no.131).

¹⁹⁰ Letter from Baring Brothers & Co. to Storey, Spalding & Co., London, 16th September 1851 (BA, LB 22, No.256).

It made it possible to grind up to 10,000 boxes of sugar, something that could only be achieved if more land were to be annexed.¹⁹¹ The new engine and mill had cost around \$10,000, and although there was the hope of recovering around half of the amount through the sale of the old engine and mill, it would nevertheless take rather more than a single crop to pay for the change.¹⁹² Nevertheless, such was both the optimism, and the need for continual modernisation in order to overcome the crises that afflicted the Cuban sugar industry, that many such purchases were made. In 1850, one observer commented that “these improvements introduced into some mills incline me to believe that the island of Cuba is one of the most advanced countries in sugar manufacture”.¹⁹³

The use of steam had become generalised by the end of the 1850s;¹⁹⁴ and the number of sugar mills was increasing. From just 20% in 1846, by 1860, 70% of all sugar mills were using steam power.¹⁹⁵ The majority of these were based in Western Cuba, with around 90% of all the mills in what is now Matanzas province boasting steam engines.¹⁹⁶ This was the most important sugar-producing region, and it saw the total number of sugar mills rise rapidly from just 145 in operation in 1840, to a peak of 517 in 1878. The mid-nineteenth century was so important in this respect that half of all mills still in existence in 1903 were founded between 1840 and 1869.¹⁹⁷

If production was to be increased, it was not sufficient simply to speed up the grinding. The Cuban sugar industry based its strength not only on volume, but also quality, and attention had to be paid to improving the processes of defecation (by which impurities were removed), filtering, reduction, crystallization, washing and draining, by which the raw cane juice was transformed into a marketable product. Advances were made in all these areas during the period, and the leading Cuban planters were quick to adopt them. By 1828, the industry saw the rapid replacement of the isolated vats previously used, in which the liquid sugar was either manually

¹⁹¹ Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 26th February 1852 (BA, HC 4.6.10, No.73).

¹⁹² Letter from Storey, Spalding & Co. to Baring Brothers & Co., Havana, 21st November 1850 (BA, HC 4.6.10, No.22).

¹⁹³ José Luis Casaseca, in *Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana*, Tomo III (1850), p.376.

¹⁹⁴ Martínez-Fernández, *Torn Between Empires*, p.98; also Bergad, *Cuban Rural Society*, p.90.

¹⁹⁵ Marrero, *Cuba*, Vol.X, p.159.

¹⁹⁶ Rebello, *Estados relativos...*, 1860.

¹⁹⁷ Ing Alberto Perret Ballester, ‘Mapa Histórico-Azucarero de la Provincia de Matanzas’, 1992 (Archivo Histórico Provincial, Matanzas (AHPM)); also Bergad, *Cuban Rural Society*, p.116.

transferred from one to another, or the whole process carried out in a somewhat haphazard fashion in a single vat.¹⁹⁸ These were very costly in the use of fuel and labour, and many mills were in danger of closing from lack of combustible material and workers. The continuous, or Jamaica, train – with connected sugar pans – saved many of them from disappearing in this way; and this system quickly became the norm.¹⁹⁹ This was followed in the 1840s by the introduction of vacuum pans, which further transformed this stage of the process.

By 1851, it was said that centrifugal apparatuses, used for the separation of the sugar from the molasses, were becoming ever more popular, with many orders being placed.²⁰⁰ It was estimated that more than 200 would be in operation by 1852, Cail & Co. of Paris being the most popular manufacturers, with more than 30 from their factory already in operation in 1851. One single planter, Zulueta, was said to have ordered as many as sixteen of them for just one sugar mill.²⁰¹

While most planters went to the expense of installing steam engines, the additional costs that new milling equipment implied proved to be too much for the majority. Therefore, “most planters continued to use ordinary mills. The large ones were too expensive, since only wrought-iron frames could stand the strains involved”.²⁰²

Mechanization required enormous amounts of money, which planters often did not have. Since the purchase of new machines had to be coordinated with the acreage, the number of slaves, and the rest of the machines in the complex, one addition in any particular phase usually translated into the necessity of making further investments in machines, land, and slaves.²⁰³

¹⁹⁸ Moreno Friginals, *El Ingenio*, Vol.1, p.88.

¹⁹⁹ Wenceslao de Villa Urrutia, *Informe presentado a la Real Junta de Fomento, de Agricultura y Comercio de esta Isla ...sobre los resultados de la zafra que este año ha hecho su ingenio en un tren de Derosne*, Havana: Oficina del Faro Industrial, 1843, p.5.

²⁰⁰ The centrifuge was used to separate the crystallized sugar from the uncrystallized molasses. The apparatus greatly speeded up this process, which then had taken several weeks, by draining through clay beds.

²⁰¹ Letter from Joaquín de Ayesterán to Henry Coit, Havana, 8th May 1851 (BNJM, Lobo 108, Vol.3, File 3).

²⁰² Denslow, *Sugar Production*, p.84.

²⁰³ Martínez-Fernández, *Torn Between Empires*, p.99.

With a severe shortage of labour in Cuba making the acquisition of new labourers (enslaved or otherwise) a very expensive and difficult business, this last consideration might have had even more weight than the cost of the machinery itself.²⁰⁴

Cuban planters were perceived by their British West Indian counterparts as being fortunate in that they were not restricted in the use of vacuum pans, and other advanced refining equipment, by metropolitan refineries:

[B]ut few vacuum pans are to be found in the West Indies, with the exception of Cuba, where the advantages of selling in a foreign market, and ...of slave labour, enabled the planters to take advantage of this beautiful process.²⁰⁵

This was an advantage that only the largest mills could apply. The Director of the Cuban Institute of Chemical Investigations in Havana, José Luis Casaseca, estimated that just twenty plantations were using the Derosne & Cail double effect vacuum apparatus by 1851, one of the principal innovations in the crystallization process that improved upon the Jamaica train.²⁰⁶ Although 77 sugar mills were employing advanced evaporation and crystallization methods ten years later, this was against the 1,286 that continued to employ the older equipment.²⁰⁷ Thus semi-mechanized mills continued to be the norm, where a steam engine would be combined with the continued use of a manually operated Jamaica train.²⁰⁸ This failure to modernize the entire process meant that, in spite of the ability to grind more cane, production had a tendency towards unevenness. One expert who reported to the United States government in the 1840s on the state of the Cuban sugar industry, noted that while there were some excellent sugar factories on the island, producing a high quality product, large numbers were poorly managed.²⁰⁹ Bottlenecks developed both in bringing sufficient cane in from the fields to feed the mills, and then in processing the cane juice into sugar. This inability of most planters, despite the debts they were entering into, to keep up with the pace of technological advances provided further

²⁰⁴ Bergad, *Cuban Rural Society*, p.119.

²⁰⁵ *The Artizan*, 1st April 1871, p.74, from a series of articles on sugar machinery that were used subsequently as the basis of Peter Soames, *A Treatise on the Manufacture of Sugar from the Sugar Cane*, London: Spon, 1872.

²⁰⁶ *Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana*, Tomo III (1850), p.372.

²⁰⁷ Rebello, *Estados relativos...*, 1860. The 77 were made up of: 32 Derosne vacuum apparatus, 20 Rillieux multiple-effect evaporators, and 25 unspecified vacuum, steam and centrifuge equipment. For a description of the Derosne & Cail and Rillieux apparatus, see Heitmann, *Modernization of Louisiana Sugar*, pp.36-7. Also Goizueta-Mimo, *Bitter Cuban Sugar*, pp.139-45.

²⁰⁸ Iglesias, 'Development of Capitalism', pp.55-56.

²⁰⁹ *Reports from the Secretary of the Treasury* (1848).

impetus both to the reduction in the quality of Cuban sugar, and to the move towards large sugar centrals in the late nineteenth century.²¹⁰

The import of foreign engineering

In 1851, the Marqués de la Real Proclamación told the Junta de Fomento in Havana that he intended to obtain a first class steam engine for his estate from Barcelona, since he desired to stimulate national (i.e. Spanish), not foreign, industry.²¹¹ The Junta agreed to support his proposal, the news having reached them that engines were built there just as well and solidly as in other countries. However, when enquiries were made, the best they could come up with was a factory that boasted to be able to build any sugar mill, so long as they were given details of the steam engine to be used – the implication being that they would be unable to supply this themselves.²¹² The reality was that, despite Spanish national pride, steam engines, and indeed nearly all other sugar machinery, had to be obtained from the countries that dominated not only the Atlantic trade networks, but also engineering: Great Britain, the United States and France.²¹³ New York, Glasgow, Liverpool and Le Havre, the port cities that together formed the nexus for nineteenth century North Atlantic commerce, also became important centres for the engineering industry, and the source of most of the steam engines and other machinery imported into Cuba.²¹⁴

In the early nineteenth century, Britain faced very little competition from other manufacturers of sugar machinery, and the first steam-powered mills were introduced from such factories as Fawcett Preston of Liverpool.²¹⁵ This was partly because British industry had access to cheaper raw materials, but also because of the early development of the engineering and machinist trades there, with the result that when these industries were developed elsewhere, British artisans often had to be recruited at

²¹⁰ Dye, *Cuban Sugar*; Iglesias, *Del ingenio al central*.

²¹¹ *Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana*, Tomo IV (1851), p.247.

²¹² ANC, GSC, 372/14200.

²¹³ In 1859, \$726,591 products and equipment for Cuban sugar estates were imported from the US; from Britain, \$557,063; from France \$167,815; and from Spain, a mere \$160 (Martínez-Fernández, *Torn Between Empires*, p.84).

²¹⁴ Butel, *The Atlantic*, pp.223-33. Although Le Havre was not itself a centre of engineering, it was the principal port serving Paris, where the most important French engineers, including Derosne and Cail, were based.

²¹⁵ By the second decade of the nineteenth century, the Liverpool engine makers Fawcett, Preston & Co. had firmly established a presence in Cuba; and in 1816, they were the first successfully to connect a steam engine to a horizontal sugar mill (Ramos Mattei, 'Role of Scottish Sugar Machinery', p.21; Moreno Friginals, *El Ingenio*, Vol.1, pp.207-8).

high wages, until such time as indigenous workers could be suitably trained.²¹⁶ Were it not for the British customs restrictions placed upon the export of certain classes of machinery up to the 1840s, this dominance might have been still greater. When a coalfield was discovered in Colombia in 1824, it was to Britain that the developers initially looked for their machines, which “will all be had from England, if the prohibitory laws are repealed. The quantity will be large, and will for many years to come, be constantly an increasing quantity”.²¹⁷ Even in the mid-nineteenth century, by which time other countries were competing with British engineers, it could be boasted that:

we must still believe that English engineers are to carry out the majority of the great works of improvements in all countries where engineering talent is not indigenous.²¹⁸

As late as the 1870s, over 90% of cane crushing mills bought in Puerto Rico came from Britain, with just 15 of a total 294 bought in the United States.²¹⁹

Throughout the mid-nineteenth century, boasts were made as to the superior quality of British machinery. In 1858, the British Consul at Havana, Joseph Crawford, was able to report that:

In machinery our manufacturers excel those of all other countries for stability and finish ... [F]or strength and durability our castings and other works are more to be depended upon.²²⁰

This perception was not just held by the British, but seems to have been more general. Ten years later, Crawford could still comment that:

It is very satisfactory to notice that ...our Hardware and Machinery are considered superior and more durable than those of any other country.²²¹

If British machinery was in general highly rated in Cuba, “engines [and] mills made in Scotland are very much lik’d [sic] here”.²²² The manufacture of sugar

²¹⁶ Evidence given by John Martineau (engineer), 17th February 1824 (PP, 1824 v, Reports from Committees, 2 – Artizans [sic] and Machinery. Six Reports of Minutes of Evidence, p.6).

²¹⁷ Evidence given by Francis Place, 20th February 1824 (PP 1824v, p.44).

²¹⁸ *The Engineer*, 12th November 1858, p.376.

²¹⁹ Ramos Mattei, ‘Role of Scottish Sugar Machinery’, p.20.

²²⁰ Trade report from Joseph T. Crawford to Earl of Malmesbury, Havana, 24th July 1858 (PRO, FO 72/944, No.38).

²²¹ Crawford to Stanley, 2nd March 1868 (PRO, FO 72/1189, No.3).

²²² Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 7th June 1851 (BA, HC 4.6.10, No.50).

machinery along the River Clyde developed from the start of the nineteenth century out of the strong links between Glasgow's merchants and Caribbean planters.²²³ Foremost amongst the Glasgow sugar machine manufacturers were the workshops of McOnie and Mirrlees Watson:

A very fine piece of work is the engine and mill of Messrs W. and A. McOnie, of Glasgow. Not as large as its great rivals, it nevertheless will bear a close comparison with the best examples of millwork in the same line, in every respect of proportion and construction.²²⁴

IV - McOnie & Mirrlees engine and mill, installed on the 'Constancia' estate in 1851

(Source: Deerr, *History of Sugar*, Vol.1, Plate X)

[Illustration removed for copyright reasons]

William McOnie was "one of the best known and most highly respected of modern Glaswegians". Although he engaged in "all branches of the science and industry of engine construction and high-class machinery manufacture", from early on his company was "disposed to more particularly confine their operations to the department of sugar-mill work, in which, probably, their greatest celebrity and reputation have been achieved".²²⁵ However most of McOnie's steam engine and mill trade appears to have been with South America (in particular Brazil and Peru),

²²³ Michael S. Moss & John R. Hume, *Workshop of the British Empire: Engineering and Shipbuilding in the West of Scotland*, London & Edinburgh: Heinemann, 1977, p.30.

²²⁴ *The Engineer*, 2nd May 1862, p.266.

²²⁵ *Glasgow of To-day: the Metropolis of the North, an epitome of results and manual of commerce*, Historical Publishing Co, 1888, p.105.

Trinidad, Guyana and Java, along with a great diversity of other places, while their business in Cuba was mainly for steam boilers.²²⁶

Mirrlees Watson was more actively engaged in providing engines and mills for Cuba. As with McOnie, their trade “consisted almost exclusively of machinery for the production, manufacture, and refining of sugar, of which they were the largest manufacturer in the country, and had a world-wide reputation”.²²⁷ Cuba was by far their most important customer, followed by Puerto Rico and the Philippines.²²⁸ Between 1847 and 1868, 185 of the 606 steam engines they made went to Cuba;²²⁹ along with 144 of the 700 sugar mills they had constructed in that period.²³⁰

The United States did not begin producing sugar machinery on a large scale until somewhat later than the British manufacturers,²³¹ though by the late 1830s the West Point Foundry of New York had established its reputation amongst those planters more inclined to look to the North than to Europe.²³² Although British engineering continued to be important in Cuba, by the 1840s the United States had begun to overtake Britain as principal provider of sugar machinery.²³³ This accelerated in the 1850s, as the import of North American iron manufactures and machinery increased greatly,²³⁴ and as the century progressed this became consolidated, as was the North American presence in other areas of Cuban economic life.

²²⁶ Glasgow University Archives and Business Records Centre (GUABRC), W & A McOnie Order Book, 1866-1869, UGD 118/4/1/2.

²²⁷ Angus McLean, *Local Industries of Glasgow and the West Coast of Scotland*, 1901, p.58.

²²⁸ Ramos Mattei, ‘Role of Scottish Sugar Machinery’, p.24.

²²⁹ Mirrlees Watson Engine Order Book (1840-1925), GUABRC, UGD 118/2/4/36.

²³⁰ Mirrlees Watson Mill Order Book (1841-1912), GUABRC, UGD 118/2/4/37.

²³¹ As with European engineering, North American engineering owed much in its initial stages to technology transfer from Britain, helped greatly by the immigration of skilled workers in the first half of the nineteenth century. However, by the 1830s/40s, US engineering firms were making innovations in technology, taking it in different directions to that of the British (David J. Jeremy, ‘Innovation in American Textile Technology during the early 19th Century’, *Technology and Culture*, 14:1 (January 1973), pp.40-76). This can be seen in the textile and railroad industries (David J. Jeremy & Darwin H. Stapleton, ‘Transfers between culturally-related nations: the movement of textile and railroad technologies between Britain and the United States, 1780-1840’, in David J. Jeremy (ed.), *International Technology Transfer: Europe, Japan and the USA, 1700-1914*, Aldershot & Brookfield: Edward Elgar, 1991, pp.31-48).

²³² Ramos Mattei, ‘The Role of Scottish Sugar Machinery’, p.21.

²³³ Martínez-Fernández, ‘Torn Between Empires’, p.84.

²³⁴ Martínez-Fernández, ‘Torn Between Empires’, p.80. US iron manufactures & machinery exports to Cuba: 1848 - \$649,730; 1860 - \$3,689,137.

V - The Novelty Iron Works of New York, a North American rival to the West Point Foundry

(Source: Moreno Friginals, *El Ingenio*, Vol.2, p.152)

[Illustration removed for copyright reasons]

American engines tended to use steam at a far higher pressure than the British,²³⁵ bringing with it the potential for greater power and efficiency, although also an increased risk of explosion.²³⁶ While such improvements may have attracted more demand for American products,²³⁷ they did not share the same reputation for quality as the European manufacturers. Complaints were often made that not all the pieces sent to Cuba were of the highest standard:

Maquinistas here say that the American machinery drive is not of such high quality as the French or English and they complain of it.²³⁸

Disputes arose between the influential Cuban plantation owners, the Diagos, and William Kemble of the West Point Foundry in New York that the latter was not properly inspecting his engines before sending them, so causing problems following

²³⁵ Zerah Coburn, 'Notes on American Engineering, Navigation, Iron Manufacture &c', *The Engineer*, 17th September 1858, p.210.

²³⁶ Although explosions were partly a result of engineering design, they were primarily caused by deficient maintenance standards or dangerous running practices (e.g. disabling safety valves). The higher the pressure, the greater care needed.

²³⁷ Letter from Crawford to Malmesbury, 24th July, 1858 (PRO, FO 72/944, No.38).

²³⁸ Letter from José Nicolás Baró to Moses Taylor & Co., Havana, 3rd October 1868 (BNJM, Lobo 122) – my translation.

installation.²³⁹ Although the Diagos had been instrumental in the success of the West Point Foundry in becoming the foremost North American provider of sugar machinery to Cuba, thanks to their “friendly influence”, by 1851 they had come to feel that “the confidence they have placed in the establishment” had not been well-placed,²⁴⁰ when delays in the provision of machinery had a detrimental effect upon their business.²⁴¹

However, such criticism seems to have been heeded, since North American engineering came to prove, and improve, itself. In 1841, Pedro Diago believed that:

the US could provide us with *pailas* and *tachos* equal or better than England: equal because they are just as well made, and better because they are closer, and it is easier to provide our market with them when there is some shortage, as frequently occurs.²⁴²

By the 1850s, the West Point Foundry was producing milling equipment capable of increasing by almost 50% the extraction of juice from the cane.²⁴³ Even the British journal *The Engineer* was forced to admit that the American “standard of engineering was on the whole the most successful to be met with”.²⁴⁴ Not only did the North American engines and milling equipment greatly improve in quality as the century progressed, but they were also notably cheaper than British engineering products:²⁴⁵ while the cost per horsepower of a typical steam engine made in Britain was \$230, those built in the United States averaged just \$150.²⁴⁶

Although most of the steam engines and milling equipment used in Cuba came from the United States or Britain, an important, if somewhat smaller, contribution was made by other European manufacturers, most notably the French, whose steam engine industry began to be developed by migrant British artisans during the early nineteenth century.²⁴⁷ The quality of French engineering quickly became well established. In 1824, a British engineer reported:

²³⁹ Letter from Pedro Diago to Henry Coit, Cambre, 20th January 1841 (BNC, Lobo 111, Vol.1).

²⁴⁰ Letter from William Kemble to Henry Coit, New York, 10th May 1850 (BNJM, Lobo 117).

²⁴¹ Letter from Francisco Diago to Henry Coit, Havana, 17th April 1851 (BNJM, Lobo 109, Vol.3).

²⁴² Letter from Pedro Diago to Henry Coit, Havana, 31st May 1842 (BNJM, Lobo 111, Vol.1) – my translation.

²⁴³ Justo Cantero, *Los ingenios, coleccion de vistas de los principales ingenios en la Isla de Cuba*, Havana, 1857 – description of Ingenio *Flor de Cuba*.

²⁴⁴ *The Engineer*, 12th November 1858, p.376.

²⁴⁵ Evidence given by Alexander Jones (PP 1841 (I) vii, p.209).

²⁴⁶ Denslow, *Sugar Production*, p.80.

²⁴⁷ There was much concern in Britain at the time that France was poaching their best engineering workers, and attempts were made to stop this. See PP 1824 v.; and David J. Jeremy, ‘Damning the

[I]f a Frenchman has a good model of a machine, he will certainly make it as well as any English mechanic, so that you cannot distinguish the one from the other.

However, the French industry produced machines on a much smaller scale.²⁴⁸ Nevertheless, the comparative cheapness of their manufactures led some planters to look in preference towards them,²⁴⁹ especially when it came to more specialised sugar refining equipment, such as vacuum pans and centrifuges, for which the French, led by Derosne and Cail, had gained a well-deserved reputation.²⁵⁰

When it became clear just how lucrative the Cuban market might be, the various rival engineering companies were not content to sit back and wait for orders to reach them. Many of them employed agents in Cuba, and by the 1850s fierce competition could be seen between those representing North American and British firms.²⁵¹ Some planters became intricately associated with capital from one or other of these countries. Prominent were the Arrietas, with their close ties to Britain; and the Diagos, with the United States.²⁵² However, whatever national competition there might have been, Cuban planters do not seem to have participated in it, but were happy to acquire their machinery from wherever they felt it would either be better made, or cheaper. Although the Diago family ordered their steam engines from New York, their boilers came from Rabone Brothers in England.²⁵³ The Drakes had originally intended to purchase the mill for their new estate near Sagua la Grande from the United States, but at the last moment decided that a British mill would serve them better.²⁵⁴ The 'Union' mill (owned by Miguel and Pedro Lomberto Fernández, and situated in Macuriges, near Cárdenas) was using four English steam engines, alongside two smaller French ones; and the 'Narciso' (owned by the Conde de Peñalver, and situated in the district of

Flood: British Government Efforts to Check the Outflow of Technicians and Machinery, 1780-1843', *Business History Review*, 51:1 (Spring 1977), pp.1-34.

²⁴⁸ Evidence given by Mr Alexander, 2nd March 1824 (PP 1824 v, p.110).

²⁴⁹ Letter from Crawford to Malmesbury, 24th July, 1858 (PRO, FO 72/944, No.38).

²⁵⁰ With the development in France and Germany of the beet sugar industry along firm scientific principles, continental engineers were given the opportunity to learn and develop the vacuum and centrifuge production techniques for which they later became renowned.

²⁵¹ Letter from Charles Edmonstone to Moses Taylor & Co., New York, 9th August 1853 (MC, MF, 234/26/1).

²⁵² Bergad, *Cuban Rural Society*, p.119.

²⁵³ Letter from Fernando Diago to Henry Coit, Havana, 7th June 1851 (BNJM, Lobo 112, No.4).

²⁵⁴ Letter from James Drake to Henry Coit, Paris, 20th March 1852 (MC, MF, 234/8/3).

Banagüises) had vacuum pans from Glasgow, in conjunction with a mill and other equipment from New York.²⁵⁵

In one area the North Americans did establish an early dominance, following a short but bitter conflict with their rivals. From as early as 1836, Alexander Robertson, the principal British investor in the first Cuban railway line, from Havana to Güines, had been casting aspersions on the abilities of the line's chief engineer, Alfred Cruger, and this fuelled a nationally defined vendetta.²⁵⁶ Although the first steam rail locomotives to be imported to Cuba were British, within a year of their being in operation pressures were mounting for their replacement by North American engines. Cruger reported:

The Commission well knows the state of our English engines. They are really worse than useless, and will soon need such repairs that would be equivalent to the cost of a new engine. The boilers are almost all burnt; the tubes are all more or less weakened; and all the other parts are very worn.

Many of the problems had arisen "from the ignorance and lack of attention from those who have managed them, not to mention the many damages caused by the repeated crashes that they have suffered". However, Cruger also began to assert "the great superiority of the American engines over the English", claiming that he could get as much work out of two American engines as from eight of the British.²⁵⁷ That Cruger was himself a North American stimulated the ensuing battle to return the British engines to their makers, and to effect the switch to North American machinery for most future railway developments in the island.²⁵⁸

The technological network

Although there were cases in which planters would acquire their engines and mills from different sources, more usually the two would be ordered in tandem, from the same firm,²⁵⁹ along with very long lists of necessary accessories, spare parts and tools.²⁶⁰ Orders would also be sent out for auxiliary engines, smaller than those used to

²⁵⁵ Cantero, *Los ingenios*, 1857.

²⁵⁶ Report of Alfred Cruger, Cerro, 25th September 1836 (ANC, Real Consulado y Junta de Fomento (RCJF), 132/6453).

²⁵⁷ Report of Alfred Cruger, 21st May 1838 (ANC, RCJF, 131/6412) – my translation.

²⁵⁸ Zanetti & García, *Caminos para el azúcar*.

²⁵⁹ Denslow, *Sugar Production*, p.80.

²⁶⁰ Mirrlees Watson Order Book, 3rd July 1860 to 12th August 1862 (GUABRC, UGD 118/2/4/1).

power the mills themselves, for the operation of pumps, saws or other equipment.²⁶¹ However, while such orders were the most important in terms of value, most of those received were for replacement or additional parts for the steam engines, mills or trains that had been earlier built by a particular company. In 1860, Mirrlees Watson provided new boilers for Pedro Forcade's 'Porvenir' mill, "to be set alongside and join to those that was [sic] sent with his Engine in 1852"; also a juice pump, tank, filters and pipe work to join the mill and engine they had built ten years previously for the Conde de Lombillo.²⁶² Machinery often proved very susceptible to the extreme conditions under which it was expected to work during the intense Cuban grinding seasons. It was common for some parts to break under the strain; and although workshops were gradually established in Cuba capable of making necessary spares or repairs, the sugar estates continued to be very dependent upon the foreign companies for provision of such parts.²⁶³ This could cause many problems, since a minor mechanical failure could bring the entire grinding process to a halt. In November 1863, Mirrlees Watson received an urgent order for a mill cheek, "wanted in 2 weeks":²⁶⁴ a difficult order to comply with, given that the journey to Cuba took at least three weeks. Those planters with more foresight ensured they had spares at hand for such eventualities. For example, the Arrietas ordered four spur wheel segments and a piston head for the Mirrlees Watson engine they had installed in their 'Flor de Cuba' mill, making their request in July 1863, leaving plenty of time to ensure completion of the order before the start of the next grinding season.²⁶⁵

While some planters placed their orders directly with the engineering companies, most were happy to leave this to agents. A. & W. Smith, of Glasgow, received requests for steam boilers, cattle pumps, centrifuges and cane carriers for Cuban plantations through Charles Edmonstone, a British-born *maquinista* resident for many years in Cuba who, by the 1860s, had established his own Havana-based company through which to channel orders for machinery.²⁶⁶ In some cases, merchants took the role of agent, as with Valentin de Goicouria & Son of Havana, who represented the

²⁶¹ Mirrlees Watson Order Book, 12th August 1860 to 17th March 1864 (GUABRC, UGD 118/2/4/34).

²⁶² Mirrlees Watson Order Book, 3rd July 1860 to 12th August 1862 (GUABRC, UGD 118/2/4/1).

²⁶³ Bergad, *Cuban Rural Society*, p.122.

²⁶⁴ Mirrlees Watson Order Book, 13th November 1863 (GUABRC, UGD 118/2/4/34, No.242).

²⁶⁵ Mirrlees Watson Order Book, 25th July 1863 (GUABRC, UGD 118/2/4/34, No.150).

²⁶⁶ A & W Smith Order Book No.6 (1866-1869) (GUABRC, UGD 118/1/2/3).

engineering firm of Edwin Maw of Liverpool;²⁶⁷ J. C. Burnham & Co., who ordered \$1000 worth of machinery from Boston for the 'Santa María' estate,²⁶⁸ and Brooks & Co., who in 1860 ordered "a good light portable Fire Engine with reservoir [and] Hose suitable for use on a Sugar Estate".²⁶⁹

This last order was made through the New York bankers Moses Taylor & Co., and as the commercial networks developed, much of the machinery sent to the island was channelled through such foreign merchant bankers and trading houses. The railway machinery ordered by Joaquin de Arrieta, one of the leading protagonists in Cuban industrial development, was purchased from Swayne & Bovill on his behalf by Frederick Huth & Co. of London.²⁷⁰ Frederick Huth also financed the purchase of machinery for Arrieta's 'Flor de Cuba' sugar plantation;²⁷¹ and ordered a range of machinery and metalwork from companies in Birmingham and Sheffield on behalf of the Goicourias.²⁷² Baring Brothers, having acquired the mortgage of the 'Arroyo' estate near Cárdenas, were responsible for obtaining a new engine and mill in Britain,²⁷³ although the administrators of the estate complained that the time taken by the bank in reaching a decision on the issue meant that this necessary modernisation would be delayed by a year.²⁷⁴

Machinery was often requested to be identical to items sent out earlier either to the same planter, or an acquaintance. In 1863, Mirrlees Watson received an order from the planter Pedro Lomberto Fernández for a steam boiler "to be exactly the same as sent with his Cane engine".²⁷⁵ Once one planter had imported a successful engine or machine, he would sometimes become the conduit for other planters to follow suit: as with the Diago family, who ordered engines and mills from the West Point Foundry on

²⁶⁷ *Diario de la Habana*, 10th June 1843.

²⁶⁸ Letter from J. C. Burnham & Co. to Baring Brothers & Co., Havana, 27th May 1850 (BA, HC 4.6.8 (Part 1), No.44).

²⁶⁹ Letter from Brooks & Co. to Moses Taylor & Co., Santiago de Cuba, 7th May 1860 (MC, MF, 235/48/6).

²⁷⁰ Frederick Huth & Co., Journal 1843 and 1844 (UCL, FH).

²⁷¹ Bergad, *Cuban Rural Society*, p.119.

²⁷² Letter from Frederick Huth & Co. to Valentin de Goicouria, London, 4th January 1841 (UCL, FH, Vol.173, Spanish letters 1841, No.17).

²⁷³ Letter from Baring Brothers & Co. to Storey, Spalding & Co., London, 6th August 1851 (BA, LB 22, No.221).

²⁷⁴ Letter from Storey, Spalding & Co. to Baring Brothers & Co., Havana, 22nd April 1851 (BA, HC 4.6.10, No.42).

²⁷⁵ Mirrlees Watson Order Book, 9th June 1863 (GUABRC, UGD 118/2/4/34, p.133).

behalf of several other important planters, including Francisco Pedroso and the Marqués de Casa Núñez.²⁷⁶ In 1840, Pedro Diago ordered a steam engine with saw on behalf of Tomás de Juara, identical to the one earlier sent to his brother Francisco's 'Tingüaro' estate, unless some important advance had subsequently been made in the construction, in which case he wanted the latest model. Diago anticipated that if the engine was of a good quality, then the other four estates bordering his might well place orders from the same firm.²⁷⁷ The Diagos themselves had turned to the West Point Foundry having been impressed by the steam engine bought by José Fernández in the 1830s, and they urged William Kemble - the director of the Foundry - to pay "strict attention ...to the workmanship [and] finish", since "upon the result of this order ...depend orders for several more for the same family".²⁷⁸ In 1852, Thomas Brooks & Co. ordered a Fire Engine for a planter, who had seen one built by John Agnew of Philadelphia in operation on another estate and wanted to acquire one for himself.²⁷⁹ When Julián de Zulueta saw a Mirrlees Watson engine and mill on display in London, at the International Exhibition of 1862, he wanted the firm to make him an identical one for his 'España' mill, "to be an extra good Job and must please the eye at the same time," with a bed plate "as deep as the one sent to [his] plantation 'Havana'".²⁸⁰

Although many of the engines and mills were ordered for specific estates, some merchants also began stocking machinery in Cuba without a particular purchaser in mind, which they subsequently attempted to sell through advertisements. In 1844, an advert appeared in the *Faro Industrial de la Habana* for a high pressure vertical steam engine with its sugar mill, built by "one of the most celebrated manufacturers of England", and which they boasted was identical to that installed by José de Bulnes in his 'Guayanamar' mill, "which has completed the last grinding season to the complete satisfaction of said gentleman, who is prepared to give reports".²⁸¹ In 1860, John Thompson and Joseph Bell, *maquinistas* resident in Sagua la Grande, brought over a

²⁷⁶ Letter from Francisco Diago to Henry Coit, Havana, 5th April 1840 (BNJM, Lobo 109, Vol.3).

²⁷⁷ Letter from Pedro Diago to Henry Coit, Havana, 27th December 1840 (BNJM, Lobo 111, Vol.3).

²⁷⁸ Letter from Henry Coit to William Kemble, New York, 16th March 1838 (BNJM, Lobo 117).

²⁷⁹ Letter from Thomas Brooks & Co. to Moses Taylor & Co., Santiago de Cuba, 18th February 1852 (MC, MF, 235/33/1).

²⁸⁰ Mirrlees Watson Order Book, 23rd March 1863 (GUABRC, UGD 118/2/4/34, p.84).

²⁸¹ Advertisement in *El Faro Industrial de la Habana*, 16th October 1844 - my translation.

steam engine and mill built by H. O. Robinson & Co. of London, along with other refining equipment from the same factory, for which they hoped to find buyers.²⁸²

Such ready-made machinery had an advantage over bespoke engines and mills ordered direct from the manufacturers: they were already in Cuba, and the planter would not have to worry about the practical difficulties of importation. The problems that often arose in acquiring machinery from abroad are illustrated by the saga of the new equipment ordered by Baring Brothers on behalf of the 'Arroyo' estate. In April 1851, the administrators of the plantation felt they had sufficient time for the engine and mill to "be sent from England, or Scotland, and delivered in Cárdenas Bay, early in September", in time to be installed before the start of the new grinding season. If not, the old machine could be repaired and used, "but if it fail during the crop time, it will be a bad business, which we hope may be avoided".²⁸³

Should the new Engine & Mill be here even on the 10th October it will not be possible to put it up in season to grind this year's crop, as the administrator on the Estate informs us, that in consequence of the large field of cane, he will be obliged to commence grinding in November in order to get through with the crop before the usual time for the rainy season to set in.²⁸⁴

Barings ordered the equipment from Scotland;²⁸⁵ however, due to the failure of the engineering company to complete the order it proved impossible to get it to Cuba by the expected date, and it was not even shipped from Britain until mid-October.²⁸⁶ Fortunately for the 'Arroyo', the old engine and mill were "in good order, and we think will answer to take off the present crop, but nothing more."²⁸⁷ In the end, the new engine and sugar trains were not fully installed until the following November.²⁸⁸

²⁸² Advertisiement in *Hoja Económica de Sagua la Grande*, 26th October 1860.

²⁸³ Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 22nd April 1851 (BA, HC 4.6.10, No.42).

²⁸⁴ Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 16th September 1851 (BA, HC 4.6.10, No.60).

²⁸⁵ Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 7th June 1851 (BA, HC 4.6.10, No.50).

²⁸⁶ Letter from Baring Brothers & Co. to Storey, Spalding & Co., London, 16th October 1851 (BA, LB 22, No.269).

²⁸⁷ Letter from Storey, Spalding & Co. to Baring Brothers & Co., Havana, 18th October 1851 (BA, HC 4.6.10, No.63).

²⁸⁸ Letter from Adot, Spalding & Co. to Baring Brothers & Co., Havana, 29th November 1852 (BA, HC 4.6.10, No.99).

There were a number of reasons why delays occurred in the transport of machinery to Cuba. In the case of British products, customs might have been a block. In the late eighteenth and early nineteenth centuries, British laws strictly controlled the export of machinery from Britain.²⁸⁹ By the early nineteenth century, as competition especially from the French started to challenge the pre-eminence of British manufacturers, the duty on steam engine exports was increased from 15% to 30%. Nevertheless, it was a relatively easy matter to get around the customs restrictions. An engineer, giving evidence before the British parliament in 1824, declared:

I think any prohibited machinery might be sent abroad by a little management; there is one obvious mode, which would be that of mixing two or three machines together in such a way, that no officer of the Customs, or indeed any engineer, could detect the nature of the machine exported; and detection would be still further prevented by shipping these parts so mixed, at different periods.²⁹⁰

However, the main concern of British customs was to control exports related to the cotton industry, and they were not too concerned about sugar-related machinery leaving the country.²⁹¹ Customs officers always paid far more attention to shipments to France and North America (Britain's leading competitors), with those going to South America generally slipping through untouched.²⁹² Besides, from 1841 all restrictions on the export of steam engines, and most machinery not related to cotton, were lifted,²⁹³ in recognition of what had for a long time been the *de facto* policy "never to stop a steam engine".²⁹⁴

The delays in the transport of machinery had far more to do with the vagaries of Atlantic travel at this time. "Ships are ...liable to accident," Baring Brothers warned the administrators of the 'Arroyo', "and we do not think it would be safe to take down the old Engine until you hear of the vessel's arrival".²⁹⁵ This was prescient advice, since the brig 'Pearl', on which the already delayed engine and mill had been loaded, had

²⁸⁹ Acts of Parliament relating to the exportation of machinery: 7 and 8 William 3 c.20; 5 George 1 c.27; 23 George 2 c.13; 14 George 3 c.71; 21 George 3 c.37; 22 George 3 c.60; 25 George 3 c.67; 26 George 3 c.89; 35 George 3 c.38 (See PP 1824 v, p.53). See also Jeremy, 'Damning the Flood', pp.1-34.

²⁹⁰ Evidence given by John Martineau (engineer), 17th February 1824 (PP 1824 v., p.6).

²⁹¹ Evidence given by David Henry Watson (Searcher of Customs to the Port of London), 3rd March 1841 (PP 1841 (I) vii, p.26).

²⁹² Evidence given by Alexander Galloway (engineer), 18th February 1824 (PP 1824 v, p.20).

²⁹³ Evidence given by David Watson, 3rd March 1841 (PP 1841 (I) vii, p.26); Jeremy, 'Damning the Flood', pp.31-2.

²⁹⁴ Evidence given by Henry St John (Comptrolling Searcher of the Customs) (PP 1824 v., p.62).

²⁹⁵ Letter from Baring Brothers & Co. to Storey, Spalding & Co., London, 6th August 1851 (BA, LB 22, No.221).

still not arrived in Cuba after some eighty days at sea.²⁹⁶ There was, of course, no way of knowing whether the ship was safe, or whether it had foundered.

Fortunately the 'Pearl' did eventually arrive in Cárdenas, by which time the new grinding season was already well under way. Even having reached the island safely, however, there were other barriers to be overcome before machinery could be installed on the estates to which it was destined. Sugar-related machine imports into Cuba were traditionally held by the Spanish to be duty free:

[T]he Legislation of the Colonies from olden times has relieved from all taxation the Machinery for Sugar Estates as an indirect means of favouring those cultivations which have mostly contributed to the prosperity and wealth of the Island.

However, with the increasing number of machines arriving it was becoming harder and harder for the customs authorities to determine what was being imported specifically for developing sugar production, and what could be construed as destined for other purposes (and hence subject to tax). For example, José Luis Alfonso attempted to import two English locomotive engines "intended to carry Sugar Cane from the cane fields to the Mill". He was charged duty, since it was argued that, while they might be used for sugar, they could also easily be put to some other use.²⁹⁷ While the great necessity for sugar machinery led to their exemption, other classes of machine were not exempt, partly out of fear that their importation might prejudice domestic manufacturers, as in the case of the machine for boxing sugar that Santiago Fogarty attempted to introduce in 1857.²⁹⁸

By the 1860s, it was becoming increasingly common for customs to try to claim tax on machine imports, and the colonial government became bombarded with applications for exemption.²⁹⁹ In 1866, complaints were made by merchants based in Cuba about the duties being levied on such imports. Under a new interpretation of the laws, machines would only be free of duty if directly imported by the planter, not an intermediary. This was problematic, since by this time most sales were being

²⁹⁶ Letters of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 24th November & 14th December 1851 (BA, HC 4.6.10, Nos.66 & 67).

²⁹⁷ *La Gaceta de la Habana*, 5th February 1865 (in PRO, FO 72/1189, Dispatch no.2 of 1868 from John V. Crawford to Lord Stanley) - consular translation.

²⁹⁸ Letter from Antonio Bachiller to Sociedad Económica, Havana, 23rd May 1857 (BNJM, C.M. Bachiller 159).

²⁹⁹ There are many such applications in ANC, Miscelánea de Expedientes (ME). See, for example, 2088/AI and 2033/K.

channelled through merchants, who had come to act as agents both for the engineering companies and the planters themselves.³⁰⁰ As a result of the new taxation, the Havana-based British merchants Santiago and Alfred Chapman were forced to tell Fawcett Preston not to export any more machinery to them, but to store it in Liverpool:

until such time as [we] shall be able to find a planter willing to buy it, or a portion thereof in England, and import it on his own account, free of duty, as it would be perfectly impossible for [us] to continue importing machinery on which [we] have to pay exorbitant duties, which [we] cannot afterwards collect from the Planter who is privileged to import free of duty, on his own account, any machinery he pleases.³⁰¹

Once machinery had arrived in Cuba, and been successfully passed through customs, it was still necessary to transport it to the estates. Even though the growing railroad network was starting to make this easier, most plantations still depended at least in part on the use of carts, which had to travel on roads very susceptible to the weather. When the administrators of the 'Arroyo' requested that the new engine and mill arrive by September, they were not just taking into account the two months they estimated would be required for dismantling the old machinery and installing the new. When the machinery had still not arrived by mid-September, they remarked:

The roads are now in such a bad state in consequence of the continued rains that it would be impossible to cart the machinery [sic] to the estate were the vessel here now.³⁰²

When the new engine and mill finally arrived in Cárdenas, it took a full month for most of the machinery to be carted to the 'Arroyo', but the engine had to wait for an improvement in the roads,³⁰³ taking a further month to reach the plantation.³⁰⁴ The wait seems to have been worth it. When Baring Brothers sent an agent to inspect the

³⁰⁰ Letter from W. W. F. Synge (British Consul General) to Lord Stanley, 6th December 1866 (PRO, FO 72/1128, No.17).

³⁰¹ Letter from Santiago and Alfred Chapman to Consul General Synge, Havana, 3rd December 1866 (PRO, FO 72/1128, No.17).

³⁰² Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 16th September 1851 (BA, HC 4.6.10, No.60).

³⁰³ Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 14th January 1852 (BA, HC 4.6.10, No.71).

³⁰⁴ Letter of Storey, Spalding & Co. to Baring Brothers & Co., Havana, 26th February 1852 (BA, HC 4.6.10, No.73).

operations of the 'Arroyo' he found the new engine "to be extremely strong and if made as to last forever".³⁰⁵

Conclusion

The degree of technological innovation in Cuba was not as generalised, beyond the introduction of steam engines, as appeared to be the case to those who viewed the island's sugar industry from the perspective of the largest plantations. Nevertheless, that Cuban planters were at the forefront of the application of industrial techniques to the processing of cane played an important part in the rise of the island to become the world's leading sugar producer. This in turn stimulated further advances, so as to maintain their position. However, the majority of planters could not keep up with the pace of technological development, as every new advance involved ever more expensive machinery. Thus the very advances that seemed to demonstrate the vitality of Cuba's sugar sector were partly responsible for the deepening crisis that forced a radical change in the industry during the late nineteenth century.³⁰⁶

This crisis was not solely about how to maintain levels of industrial development, but also about how these were going to be paid for, and how they had been paid for in the past. If the late nineteenth century was a period characterised by the growing control of the island's economy and industry by foreigners,³⁰⁷ the middle years of the century saw the establishment of the foundations for this take-over. Although planters could make large profits, this could only be done following considerable capital investment in land, labour and machinery. With a lack of indigenous sources for such funding, they turned first to the merchants resident in the island (many of them foreign), who acted as a conduit for funds from the merchant banks of London and New York. While the latter were at first content to be distant sponsors, sharing in the wealth that their investments were helping to generate, as Cuba was shaken by crises, they found it increasingly expedient to call in the mortgages they held on plantations, so assuming ever more direct control of these enterprises. Sugar was not the only industry affected in this way. By the end of the

³⁰⁵ Letter of Storey, Spalding & Co. in liquidation to Baring Brothers & Co., Havana, 19th July 1852 (BA, HC 4.6.10, No.88).

³⁰⁶ See Moreno Fraginals, *El Ingenio*; Iglesias, *Del ingenio al central*; Dye, *Cuban Sugar*.

³⁰⁷ See Fernández, *Encumbered Cuba*.

nineteenth century, most railway lines (which had been built through local initiative using foreign capital) had come under foreign management.³⁰⁸

This connection between technological innovation and economic domination was not a casual one, but had long formed the basis for European global expansion.³⁰⁹ Steam engines and other machinery, alongside transport, medicine, armaments and communications, became the “tools of empire”,³¹⁰ “which shrank the world, and made new environments penetrable and profitable”.³¹¹ Rivalry between the North Atlantic powers, in particular Britain and the United States, was not primarily about political domination, rather politics served the interests of the economic empires that each was establishing, “cheaply obtained by taking advantage of new technologies”.³¹²

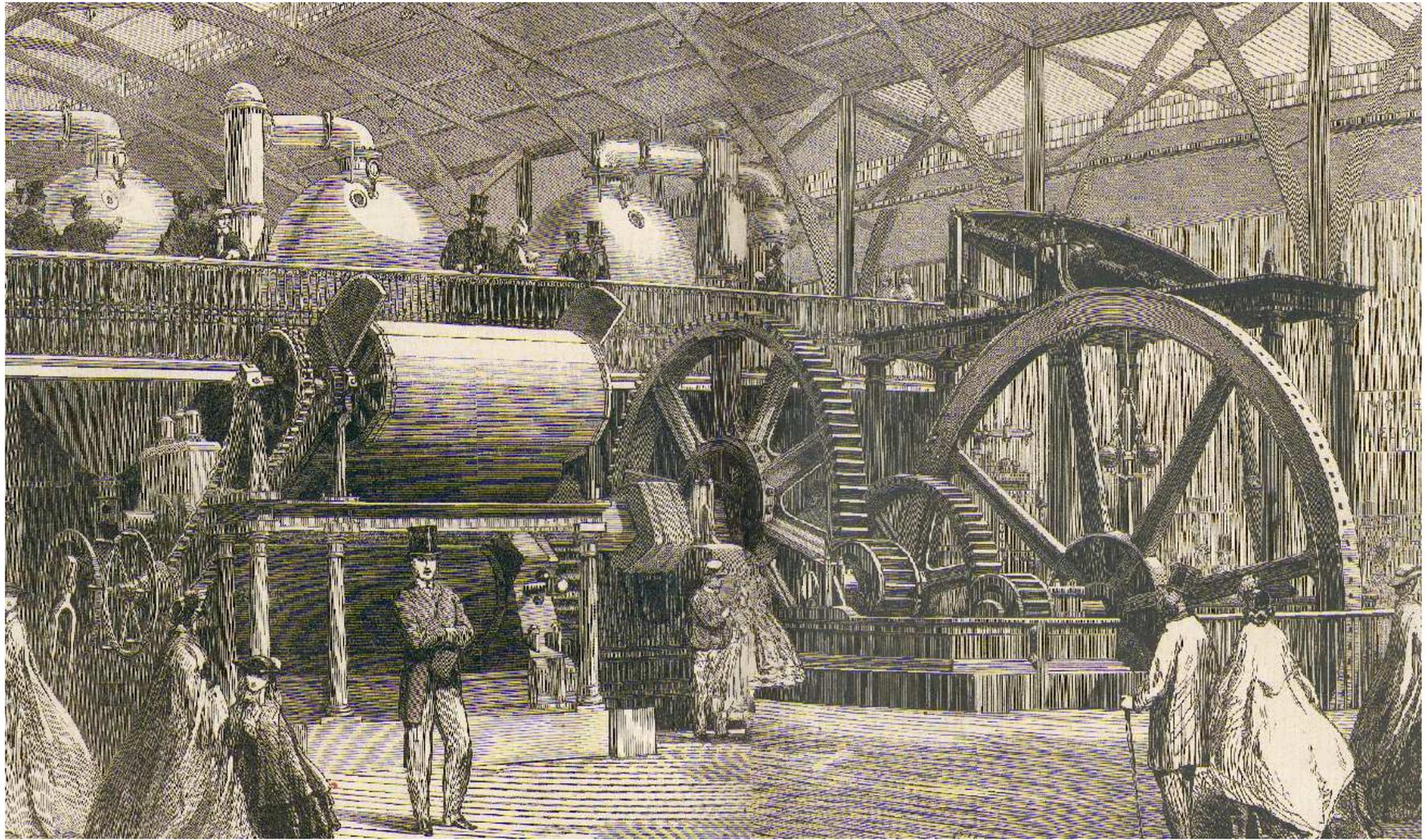
³⁰⁸ See Zanetti & García, *Caminos para el azúcar*; and *Sugar and Railroads*.

³⁰⁹ Michael Adas, ‘Introduction’, in Michael Adas (ed.), *Technology and European Overseas Enterprise: Diffusion, Adaption and Adoption*, Aldershot & Brookfield, Vermont: Variorum, 1996, pp.xv -xxv; Philip D. Curtin, *The World and the West: The European Challenge and the Overseas Response in the Age of Empire*, Cambridge: Cambridge University Press, 2000, pp.19-37.

³¹⁰ Daniel R. Headrick, *The Tools of Empire: technology and European imperialism in the nineteenth century*, New York & Oxford: Oxford University Press, 1981.

³¹¹ Richard Drayton, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World*, New Haven & London: Yale University Press, 2002, p.172.

³¹² Headrick, *Tools of Empire*, p.209.



VI - Sugar Mill and Engine, built by Mirrlees and Tait of Glasgow, in exhibition at the London International Exhibition, 1862
(Source: *The Illustrated London News*, 21st June 1862)

CHAPTER THREE
MAQUINISTA MIGRATION:
 RECRUITMENT, TRAVEL AND ARRIVAL

Domination was not just the consequence of dependence upon foreign investors, nor the tying of local industry to foreign technical advances. Each of these required the presence of workers skilled in their application, yet it was this that continued to be lacking in Cuba. As in other colonies, although the island's economy grew during the period, "investments went into physical not human capital", so restricting the possibility for the island to begin to develop in its own right.¹ Migration was therefore not simply a collateral effect of commercial networks and technological transfers. It has been quantitatively demonstrated that there was a direct link between migration and economic growth.² Migrants, such as the *maquinistas*, brought both the manpower and the expertise that was needed to bring about economic development, and Cuba itself was closely tied into the "dense human networks" that criss-crossed the Atlantic with their multiple movements: free or enforced; permanent or temporary.³

This chapter begins by placing the migration of *maquinistas* to Cuba in the context of the wider migratory networks of which their movement formed a part, and of the different migrations that went to form the Cuban nation. It continues by examining the processes by which the *maquinistas* were recruited, not just for work in Cuba, but wherever steam engines and machinery were being installed. The reasons for their migration, the complex paths that they took, and the trans-Atlantic journey itself, are explored. The problems, in particular health-related, faced by the migrants on their arrival, and the regulations applied to their immigration are looked at. Finally, the presence of the *maquinistas* in Cuba is described in terms of the quantitative evidence

¹ Daniel R. Headrick, *The Tentacles of Progress: technology transfer in the age of imperialism, 1850-1940*, New York & Oxford: Oxford University Press, 1988, p.384.

² Brinley Thomas, *Migration and economic growth: a study of Great Britain and the Atlantic economy*, 2nd edition, Cambridge: Cambridge University Press, 1973. This was a two-way process: migrants spread economic development, but by leaving they also acted as a safety valve in the homelands, which itself contributed to increased prosperity there (P. C. Emmer, 'European Expansion and Migration: The European Colonial Past and Intercontinental Migration; An Overview', in P. C. Emmer & M. Mörner, *European Expansion and Migration: Essays on the Intercontinental Migration from Africa, Asia, and Europe*, New York & Oxford: Berg, 1992, p.11).

³ R. Darrell Meadows, 'Engineering Exile: Social Networks and the French Atlantic Community, 1789-1809', *French Historical Studies*, 23:1 (Winter 2000), p.70.

available, which while scant nevertheless helps provide a profile of these migrant workers as a group, and an indication of the numbers involved.

Cuba and the migratory networks

The Atlantic space was partly constructed out of commercial networks, and power rivalries. However, it was above all defined by the dense interlacing of different human migrations, which underwent a sharp increase during the nineteenth century. Prior to 1850, the overwhelming majority of Atlantic migrants did not travel voluntarily. They crossed the ocean either as slaves from Africa, or as bonded labourers and servants from the European working class.⁴ The voracious need for workers in the New World plantations provided the prime stimulus for the slave trade, and although the British outlawed this from 1807, it nevertheless continued well into the second half of the nineteenth century.⁵ For most slaves, this enforced migration was far from straightforward, but involved many changes of location, and even of identity, in the course of a lifetime. Far from being opposed poles, freedom and enslavement formed a continuum along which most workers moved, many of them slipping in and out of various states of bondage, as well as moving from place to place, or from owner to owner, according to the necessities of the market. Thus the African William Thomas was freed when a boy by British cruisers from a slave vessel around 1810, and landed at Sierra Leone. Between 1829 and 1834 he served in the British Royal Navy, at Fernando Po. Shortly afterwards he was captured by the Cuban slave trader Pedro Blanco in Sierra Leone, where he was working as a river trader, and taken to Cuba. He eventually managed to escape to Britain, where he found himself “in a state of want and almost of nakedness in this country”.⁶ The African trans-Atlantic experience, far from being one of simple rupture, involved a multiplicity of such complex journeys, “continuities and discontinuities, invention and re-invention”.⁷

In the nineteenth century, Europe experienced a population explosion for which industrialisation and urban development, although rapidly advancing, were not

⁴ David Eltis, ‘Free and Coerced Migrations: the Atlantic in Global perspective’, in Solvi Sogner (ed.), *Making Sense of Global History*, Oslo: Universitetsforlaget, 2001, p.190.

⁵ José Luciano Franco, *Comercio Clandestino de Esclavos*, Havana: Editorial de Ciencias Sociales, 1996.

⁶ Letter from Colonel Edward Nicholls, RM, to Hon Sidney Herbert, Shooter’s Hill, 12th January 1843 (RH, BFASS, MSS Brit. Emp. s.18, G78).

⁷ Paul E. Lovejoy, ‘Identifying enslaved Africans in the African diaspora’, in Lovejoy, *Identity in Shadow*, pp.1-29.

sufficient to meet the growing need.⁸ A mid-nineteenth century commentator remarked that “all of Europe is crossing the ocean. ...All those who cannot live at home”.⁹ In Britain, emigration came to be assisted by the state, which first through the Poor Law Boards, and from 1842 through the Colonial Land and Emigration Commissioners, sent large numbers of poor Britons to the distant reaches of the burgeoning British Empire.¹⁰ The development of steam ships, combined with the regularisation of shipping lines and increased competition, progressively lowered the cost of passage, so enabling poorer migrants than before to travel.¹¹ Whereas in 1825, a steerage passenger would have to pay £25 for the journey from Liverpool to the United States, by 1863 this had been reduced to £4.15s on a steamer, or just £3 on a sail packet.¹² The introduction of technological advances in more far-flung places necessitated the migration of workers with skills not found indigenously.¹³ Emigration became an important life option for the European working class, eager to escape the constraints of a restrictive class system and the ever-present fear of descent back into poverty. Thus “numerous British artisans and their families, coming from the valleys of the Mersey, the Clyde or the Tyne, ...managed to find pride on American soil”.¹⁴

Just as the Africans, from their many nations, found themselves dispersed and interspersed about the Atlantic area, so too were the ‘free’ migrants – although without such traumatic consequences.¹⁵ While most visible have been the migrations to the United States, Europeans of all nationalities found themselves spread throughout the Americas.¹⁶ The French, for example, migrated through a combination of routes, sometimes via other European countries (in particular England), and also from the Francophone Caribbean to elsewhere in the region.¹⁷ The British were distributed around the planet, following the extension not just of the British Empire, but also of

⁸ Magnus Mörner, *Adventurers and Proletarians: the story of migrants in Latin America*, Pittsburgh & Paris: University of Pittsburgh Press, 1985, p.35.

⁹ Philip Hone, cited by Robert Greenhalgh Albion, *The Rise of New York Port, 1815-1860*, Newton Abbot: David & Charles, 1972, p.349.

¹⁰ Charlotte Erickson, *Emigration from Europe, 1815-1914 – select documents*, London: Adam & Charles Black, 1976, p.127.

¹¹ Mörner, *Adventurers and Proletarians*, p.37.

¹² Butel, *The Atlantic*, p.247.

¹³ Mörner, *Adventurers and Proletarians*, p.39.

¹⁴ Butel, *The Atlantic*, p.243.

¹⁵ Emmer, ‘European Expansion’, pp.6-12.

¹⁶ Oliver Marshall, *European Immigration and Ethnicity in Latin America: a bibliography*, London: ILAS, 1991.

¹⁷ Meadows, ‘Engineering Exile’, pp.70-1.

more widespread British commercial and industrial interests.¹⁸ Irish emigration was becoming increasingly driven by economic hardship, leading to mass migrations across the Atlantic to the United States. From there, Irish labourers became dispersed further afield in the search for employment, and it was often Irish hands that built the railway systems that were spreading through the Western Hemisphere, including Cuba.¹⁹

As migration increased, it became more common for migrants to depend upon familial networks already in existence:

Where there were friends, political allies, business contacts, relatives, and other social relations, even socially distant ones, to be found, exiles acquired the information, financial resources, influence, and emotional support necessary to ...survive the exile experience.²⁰

The presence of a relative in another country provided a convenient means of entry into a new society, and greatly eased the potentially traumatic transition. Family or friends could facilitate the acquisition of employment, and provided a safety net during the initial period of adjustment.²¹ However, such was the complexity of these intermingling migrations, that families often became irreparably separated. For example, when William Graham died intestate in Santiago de Cuba around 1853, a search was made for his legal heirs. Graham came originally from Ireland, but had changed his name from Grimes in 1823. He had initially emigrated to the United States, then to Jamaica, and finally to Cuba; and had two half brothers in the United States, who had also changed their names to Graham on hearing that William had done so - with the implication that this was to secure their share of his estate. William's full brother James had long since disappeared, without leaving any indication as to his whereabouts. He also had two sisters, one of whom was last known to be living in New York, married to a shoemaker, but with no recent news as to where she was;

¹⁸ See Charlotte Erickson, *Leaving England: Essays on British Emigration in the Nineteenth Century*, Ithaca & London: Cornell University Press, 1994. Immigration to the United States increased massively after 1840. Although it was not until after 1870 that migration to Latin America became massive (Butel, *The Atlantic*, p.242), nevertheless there was a free migrant presence throughout the Americas from much earlier (Mörner, *Adventurers and Proletarians*; Marshall, *English-speaking Communities*). Between 1840 and 1879, while 35.9% of British overseas migration was destined for Australia and New Zealand, and 34.6% to the United States and Canada; only 1.7% travelled to South and Central America (Colin Pooley & Jean Turnbull, *Migration and mobility in Britain since the 18th Century*, London: UCL Press, 1998, p.279).

¹⁹ O'Sullivan, *Irish World Wide*; also William J. Smyth, 'Irish Emigration, 1700-1920', in Emmer & Mörner, *European Expansion*, pp.49-78.

²⁰ Meadows, 'Engineering Exile', p.101.

²¹ Kevin Schurer, 'The role of the family in the process of migration', in Pooley & Whyte, *Migrants, Emigrants and Immigrants*, pp.106-42.

while the other was known to have been living in Manchester in 1839, though since that date no news had reached William in Cuba.²²

Another, more famous, migrant who came to Cuba also demonstrates through his personal history the complexity of such Atlantic migrations. David Turnbull was born in Scotland, and married in Northern Ireland. Between 1830 and 1837, he moved frequently between Britain, France, Belgium and Spain. In 1838, he embarked for the Caribbean for the first time, stopping at Demerara, Barbados, Trinidad, Jamaica, Haiti and finally Cuba, before returning to Britain via the United States, Canada and Ireland. After a few months in France, he returned to Cuba in 1840, now as British Consul and Superintendent of Liberated Africans.²³ There he remained until his expulsion in 1842, which led him to travel first to the Bahamas, and then, after a visit back to Britain, to Jamaica, where he remained for several years.

If the entire Atlantic world was the site of mass migrations, the Caribbean, arguably situated at its geographical and commercial centre, was a particular focus. More than half of the trans-Atlantic slaves were destined for the region's "tropical staple-producing colonies",²⁴ and through the nineteenth century the numerically largest immigration continued to be of Africans.²⁵ In many ways, the Caribbean can be seen as defined by migration:

The Caribbean colonies were not European imperial possessions erected upon massive indigenous bases in areas of declining great literate civilizations ...they were not mere ports of trade ...they were not 'tribal' mosaics ...nor were they areas of intense European settlement ...They were, in fact, the oldest 'industrial' colonies of the west outside Europe, manned almost entirely with introduced populations, and fitted to European needs with peculiar intensity and pervasiveness.²⁶

²² Letter from Richard Hudson Beattie (Acting British Consul) to Earl Russell, Santiago de Cuba, 9th August 1862 (PRO, FO 72/1041, No.14).

²³ Letter from Turnbull to Palmerston, Havana, 2nd February 1841 (PRO, FO 72/584, No.19).

²⁴ Stanley L. Engermann & B. W. Higman, 'The demographic structure of the Caribbean slave societies in the eighteenth and nineteenth centuries', in Franklin W. Knight (ed.), *General History of the Caribbean. Volume III: The slave societies of the Caribbean*, London: UNESCO & Macmillan, 1997, p.60.

²⁵ Between 1811 and 1916, 799,100 slaves and indentured labourers arrived (despite the outlawing of the slave trade), compared to just 180,729 Europeans (P. C. Emmer, 'Immigration into the Caribbean: the Introduction of Chinese and East Indian Indentured Labourers Between 1839 and 1917', in Emmer & Mörner, *European Expansion*, p.251).

²⁶ Sidney W. Mintz, 'The Caribbean as a Socio-cultural Area', in Michael M. Horowitz (ed.), *People and cultures of the Caribbean*, Garden City: Natural History Press, 1971, pp.36-7.

But it was not just immigration into the region that socially defined the Caribbean. Despite the attempts by the colonial powers to assert their political domination over specific territories, this was always an area of popular migrations “confounding the image of well-controlled colonies with well-defined national boundaries”.²⁷ Largely driven by labour needs, but also linked to informal commercial networks that sought to ignore frontiers, the Caribbean was a fluid zone of internal migrations.²⁸ Sailors and corsairs connected the islands; slaves were sold between colonies; ex-slaves journeyed in search of employment; and skilled workers would travel to wherever a lucrative contract could be signed.

Migration played a formative role in the development of the Cuban nation, and while immigration into much of the Caribbean was dominated by the African slave trade, with relatively small enclaves of Europeans, Cuba’s demographic mix was always more diverse. As early as the sixteenth century, the island had earned a reputation as the “refuge and shelter for the desperate of Spain”.²⁹ With the collapse of Spanish power in mainland America came the arrival of “aggressive royalists”, helping to tie the island closer to the colonial power, while at the same time exacerbating Spanish-Creole tensions.³⁰ It became a “centre for the most delinquent who come exiled from Peru and New Spain and other places”.³¹ Such was the extent of this, that in 1853 José Gutiérrez de la Concha, who had been Captain General and Governor of the island, criticized popular opinion that held Cuba to be a virtual penal colony.³²

Although most of the inhabitants, or their ancestors, arrived from Spain or Africa, which together continued to form the most important ethnic groupings, individuals from many other countries also settled in Cuba. Some of these groups were large in number, and their influence upon Cuban society is still immediately apparent. This was particularly the case with the Chinese, thousands of whom entered the country in the second half of the nineteenth century as bonded labourers to help fill

²⁷ Scott, ‘Crisscrossing Empires’, p.129.

²⁸ Emmer, ‘Immigration into Caribbean’, p.250; David Eltis, ‘The slave economies of the Caribbean: structure, performance, evolution and significance’, in Knight, *General History*, pp.126-7; Elizabeth McLean Petras, *Jamaican Labor Migration: White Capital and Black Labor, 1850-1930*, Boulder: Westview Press, 1988, p.52.

²⁹ Miguel de Cervantes Saavedra, ‘El celoso extremeño’, in *Novelas Ejemplares*, Barcelona, 1958, p.329.

³⁰ Ely, *Cuando reinaba...*, p.114.

³¹ Francisco Carreño, cited in Heinrich Friedlaender, *Historia Económica de Cuba*, Havana, 1944, p.42.

³² José Gutiérrez de la Concha, *Memorias sobre el estado político, gobierno y administración de la isla de Cuba*, Madrid, 1853, p.42.

the gap left on the plantations by the collapse of slavery.³³ But other national groups played significant parts, even if they have remained somewhat less visible. Juan Pérez de la Riva has estimated that, alongside the 800,000 of Spanish origin living in Cuba during the nineteenth century, there were 55,000 French, 40,000 Latin Americans, 30,000 North Americans and 20,000 Britons.³⁴

Table 4 - Cuban population according to nationality, 1862

(Source: Armildez de Toledo, *Noticias Estadísticas*, 1864)

	Number	% of Total
Cubans	601,160	46.78%
Spanish (Peninsular & Canary Islands)	116,114	9.04%
Chinese	34,046	2.65%
North American	2,496	0.19%
Antillean	712	0.06%
Latin American	3,420	0.27%
French	2,606	0.20%
British	1,244	0.10%
Other European	1,059	0.08%
Black ³⁵	520,400	40.49%
TOTAL	1,285,150	100%

As Table 4 shows, these other nationalities were numerically dwarfed by the main groups. However, the concentration of many of these foreign migrants in specific locations or occupations led them to have a significance in Cuban society that belied their actual numbers.³⁶ The towns of Matanzas and Cárdenas were famed for having “more the character of American than Spanish settlements”, due to the number of American settlers there.³⁷ It was remarked that the Americans were “daily acquiring more territory ...by extensive purchases”.³⁸ Many British were to be found in the same districts as the Americans, connected in varying ways with the sugar industry. A small

³³ Corbitt, *Study of the Chinese*.

³⁴ Pérez de la Riva, *Demógrafos de la dependencia*, p.21, note 35.

³⁵ Censuses during most of the 19th century group all blacks together, regardless of national origin.

³⁶ Curry-Machado, *Running from Albion*.

³⁷ Madden, *The Island of Cuba*, 1849, p.83.

³⁸ Letter from R. R. Madden to Lord Glenelg, 15th April, 1839 (PRO, CO 318/146).

pocket of British migrants, most of them “natives of the Colonies”,³⁹ could also be found in the region of Holguín. In the extreme East of the island, there was a pocket of Britons, most of whom were connected to the copper mining near Santiago de Cuba. There were also many French, “who are found in considerable numbers in and around Santiago, both from France and her ancient colonies or their descendents”.⁴⁰ Many of these originated in the exodus from neighbouring Haiti, following the revolution there;⁴¹ and they helped to stimulate early improvements in the Cuban sugar industry.⁴²

Migration was not just a one-way process. Exile has always figured strongly in the Cuban identity, and in the mid-nineteenth century many liberal and independence minded Creoles were forced to flee the island. Leading figures like Domingo del Monte and José Antonio Saco spent many years waiting for the political atmosphere to change in Spain and her colonies, sitting the time out mainly in the United States. Young Cubans, and also the offspring of foreign residents, would often travel to the United States “for the purpose of acquiring the language”,⁴³ or a more general education. For example Luis Elizalde, the adopted son of James Drake, travelled to New York for just such a purpose, placed under the care and supervision of Drake’s North American agent, Henry Coit.⁴⁴ Such travel was not only to the United States, but also to Europe. In 1861, Beattie, the son-in-law of Thomas Brooks, initially had “the view of placing at school” in the United States “his eldest boy”.⁴⁵ In the end he changed his mind, taking the lad to Europe instead.⁴⁶ Likewise Carlos del Castillo (from one of the most influential Creole families, allied by marriage to the Drakes) placed his eldest son in an English public school.⁴⁷

³⁹ Letter from James Kennedy to Viscount Palmerston, 26th December 1850 (PRO, FO 72/771).

⁴⁰ Letter from British Consul to Earl of Aberdeen, Santiago de Cuba, 31st December 1841 (PRO, FO 453/4).

⁴¹ Letter from Charles Clarke to Earl Russell, 4th August 1844 (PRO, CO 318/149).

⁴² Humboldt, *Island of Cuba*, 1856, pp.276-7. Olga Portuondo Zúñiga, *Santiago de Cuba: desde su fundición hasta la Guerra de los Diez Años*, Santiago de Cuba: Editorial Oriente, 1996.

⁴³ Letter from Brooks & Co to Moses Taylor & Co, Santiago de Cuba, 11th May 1860 (MC, MF, 235/48/7).

⁴⁴ Letter from James Drake to Henry Coit, Paris (MC, MF, 234/11/1).

⁴⁵ Letter from Brooks to Moses Taylor & Co, 13th March 1861 (MC, MF, 235/3/1).

⁴⁶ Letter from Thomas Brooks to Moses Taylor & Co, Santiago de Cuba, 16th April 1861 (MC, MF, 235/3/2).

⁴⁷ Ely, *Comerciantes cubanos*, pp.83-140.

Business also led to movement out of Cuba. Merchants would often combine trips to the United States and Europe, as Thomas Brooks did, when he travelled to London in 1855 having first passed through North America.⁴⁸ In 1850, Joaquín de Ayesterán travelled to Europe investigating advances being made in sugar machinery, visiting in the process the cities of Liverpool, Birmingham and Paris.⁴⁹ In 1831, George Knight made a journey to Britain, travelling to London, Scotland, Manchester and Liverpool, before returning to Cuba via Boston and New York.⁵⁰

Before the Cubans turned to Chinese indentureship to solve their labour problems, in the aftermath of the signing of the Anglo-Spanish treaty for the suppression of the slave trade in 1817 there emerged a concern for the promotion of white immigration to Cuba.⁵¹ In 1818 and 1819, 1,849 arrived in Havana and Matanzas, the largest group of whom came from Spain and the Canary Islands. However, since the majority of these were peasants and agricultural labourers, there was also a need to attract migrants from other more industrially developed countries. As a result, 30% came from France, 14% from Britain or Ireland, and 10% from North America, most of whom were artisans.⁵² Projects of white colonisation continued to be promoted throughout the nineteenth century. In the 1830s, Cuba hoped to encourage white immigration from European countries with surplus populations – in particular the Canary Islands, Northern Europe, Switzerland and Ireland.⁵³ Such migration continued to be relatively slow. In 1839, while 4,511 arrived from Spain and the Canaries, just 241 came from France, 51 from Britain, and 44 from the rest of Europe. However, the growing North American presence was becoming felt, with 1,331 originating in the United States.⁵⁴ A decade later, attempts were still being made to encourage “white colonists from all parts of Europe”, though especially from Scotland, Germany and Northern Spain.⁵⁵ While the introduction of white labourers did not become significant until the mass influx of poor Spanish began in the second half of the

⁴⁸ Letter from Brooks & Co to Moses Taylor & Co, Santiago de Cuba, 15th November 1855 (MC, MF, 235/52/19).

⁴⁹ BNJM, Lobo, 108/3/2.

⁵⁰ Letter from George Knight to Joshua Bates, Liverpool, 15th November 1831 (BA, HC 4.6.2 (Part 1), No.23).

⁵¹ See Naranjo & García, *Racismo e inmigración*, pp.45-67.

⁵² *Memorias de la Sociedad Económica*, 1819 and 1820.

⁵³ *Memorias de la Sociedad Económica*, 1836, pp.396-7.

⁵⁴ Trade report from Tolmé to Palmerston, Havana, 25th July 1840 (PRO, FO 75/559, No.5).

⁵⁵ Yearly report from James Kennedy to Palmerston, Havana, 1st February 1848 (PRO, FO 313/22).

century,⁵⁶ the arrival of European and North American workers skilled in the industrial arts was a vital contribution to the island's development. Not only was this through their labour, but also, as will be shown, through their contribution to technological innovation, and more generally through the form taken by their interaction with Cuban society.

The Migration of *maquinistas*

Mechanization increased labour demands in Cuba.⁵⁷ While this was principally felt in the expansion of production requiring a massive increase in field hands, the machines themselves had to be installed, operated and maintained, and Cuba lacked not just the manpower, but workers with the necessary skills to fulfil this.⁵⁸ When compared with the country's need for labourers which stimulated first the slave trade, and then successive waves of unskilled and semi-skilled migrants, the number of *maquinistas* needed was not large. While the larger estates might have two or three *maquinistas* employed, most required just one;⁵⁹ and even when the scale of production increased this single worker was generally sufficient for the mill's needs.⁶⁰ But the demand in the island for these skilled workers was growing, as more and more sectors of economic and industrial life adopted steam technology; and although a mill might just require a single *maquinista* to operate it, the lack of such a worker could easily lead to the loss of an entire year's production.⁶¹ As a result, "with steam engines came mechanics, who were mostly foreigners":⁶²

[E]very mill, every steam boat, every train locomotive has to have with it an intelligent foreigner to direct and inspect the engine.⁶³

Recruitment

Maquinistas were generally looked for in the same countries that were producing the engines and other machinery, and where, as a consequence, there were many

⁵⁶ Maluquer, *Nación e inmigración*.

⁵⁷ Martínez-Fernández, *Torn Between Empires*, pp.100-1.

⁵⁸ Bergad, *Cuban Rural Society*, pp.121-2.

⁵⁹ Iglesias, 'Development of Capitalism', p.58.

⁶⁰ Denslow, *Sugar Production*, p.93.

⁶¹ Bergad, *Cuban Rural Society*, p.131.

⁶² Iglesias, 'Development of Capitalism', p.58.

⁶³ Francisco de Paula Serrano, in *Memorias de la Sociedad Económica de la Habana*, Tomo IX (1840), p240 – my translation.

maquinistas to be found. In Britain, the number of workers involved in engineering almost doubled through the mid-nineteenth century.⁶⁴

There are many important districts, Glasgow, Belfast and Liverpool; and there are immense numbers of mechanics employed in mills, not only in the making of machinery, but in the repair of it; almost every mill has its mechanics, more or less.⁶⁵

By this time, a similar state of affairs could be found in the industrial cities of the North Eastern United States, and in 1840, a number of Cuban planters wanted to take advantage of the good relations Francisco Diago had with Henry Coit in New York, who was asked to do all he could to find *maquinistas* there prepared to work on their estates.⁶⁶

When important orders for machinery were made in the nineteenth century, it was very common for a condition to be attached to the order that skilled workers be sent “to put together that machinery and remain in charge of it”.⁶⁷ This was already a long-established practice for engine builders. As a British engineer reported in 1824:

When we send machinery abroad we are under the necessity of sending men to erect it; that generally forms part of the contract which we enter into with the parties for whom we construct it.⁶⁸

When the dredger ‘San Carlos’ and tug ‘General Concha’, to be used in Matanzas bay, were bought in New York from the Novelty Iron Works, it was stipulated that the factory should provide two trustworthy *maquinistas* skilled in their operation.⁶⁹ Likewise, when locomotives were acquired from Philadelphia for the Cárdenas to Bemba railway in 1839, it was requested that they should come with “a man who knows how to direct them”.⁷⁰

Even when there were *maquinistas* already available locally, there was often a preference shown by planters to engage workers recommended by the manufacturers,

⁶⁴ Hobsbawm, *Industry and Empire*, p.117.

⁶⁵ Evidence given by William Jenkinson (Machine maker), 17th March 1841 (PP 1841 (I), vii, p.113).

⁶⁶ Martínez-Fernández, *Torn Between Empires*, p.264.

⁶⁷ Evidence given by Grenville Withers (engineer and machinist), 10th March 1841 (PP 1841 (I) vii, pp.88-89); also evidence given by John Martineau (Engineer); (PP 1824 v., p.6); Thomas Cheek Herves (engineer & machine maker), 29th March 1824 (PP 1824 v, p.337); and Henry Houldsworth, 2nd April 1824 (PP 1824 v., p.395).

⁶⁸ Evidence given by John Martineau (Engineer), 17th February 1824 (PP 1824 v., p.9).

⁶⁹ Archivo Histórico Nacional, Madrid (AHN), Ultramar, Cuba/Fomento (UCF), 35/2 No.35.

⁷⁰ *Diario de la Habana*, 24th November 1839 – my translation.

who had proven experience with the specific machines that they were installing. In 1838, Francisco Diago expressed his regret that he was:

half committed to one machinist for the seating of my machine and that this impedes me from accepting Mr Kemble's offer, but if he sends a *maquinista* to seat the machine works that have come to this Island, I would be grateful if he were to recommend me to him in case of something happening to my machine, or should he who has come to seat it fall ill or die. And if in the interim I find a decent means of evading my commitment, I will advise you or it without delay, because in addition to the confidence that someone recommended by Mr K[emblem] inspires in me, it is convenient for all of us that the Island should have abundant *maquinistas*.⁷¹

Two years later, the same Diago was waiting for the arrival of another *maquinista*, sent by Kemble of the West Point Foundry, to install some machines. This was in replacement of a *maquinista* who they had contracted, from the same foundry, but who was unable to come. He warned that "if Mr Kemble does not take care to send a substitute worthy of him, he runs the risk of his machines falling into disrepute".⁷²

Maquinistas were also recruited on behalf of planters and other employers through agents placed in countries such as Britain and the United States. When concerns were raised by the British parliament in the 1820s as to the number of skilled machine workers who were leaving the country, many witnesses told of how such agents were "enticing men" away, "and that is a cause from which we have had considerable loss lately".⁷³

There is no doubt there have been agents in almost every town, to endeavour to collect workmen. I have heard of them in Glasgow, and have known of men going, who have been engaged in Glasgow.⁷⁴

By the 1840s, this had become more widespread, in particular stimulated by the development of Britain's own colonies:

A multitude of persons acting independently of each other, are simultaneously making contracts with mechanics, artisans, husbandmen and others, for their removal to New South Wales. On

⁷¹ Letter from Francisco Diago to Henry Coit, Madrugá, 24th April 1838 (BNJM, Lobo 109, Vol.3) – my translation.

⁷² Letter from Francisco Diago to Henry Coit, Havana, 28th September 1840 (BNJM, Lobo 109, Vol.3) – my translation.

⁷³ Evidence given by William Brunton (civil engineer), 26th March 1824 (PP 1824 v., p.337). Also evidence given by John Martineau, 17th February 1824 (PP 1824 v., p.10).

⁷⁴ Evidence given by Henry Houldsworth, 2nd April 1824 (PP 1824 v., p.401).

the faith of these contracts men abandon their trades and their houses, sell their property, and purchase outfits as emigrants.⁷⁵

Because of their valuable skills, engineering workers were amongst the most sought after. A flax machine maker from Salford commented on how one French enterprise had:

sent over an English workman, a very clever man, that they engaged some time ago; he came over to Manchester and Leeds, and has engaged workmen, and has taken them back with him, and they are now employed in making models and purchasing tools to make their own machinery.⁷⁶

Given the very specific skills that were required in migrant engineering workers, agents would have had to direct their efforts more precisely, in order to acquire suitable men. The engineer Alexander Galloway remarked:

If I was a foreigner, and wanted men ...my object would be to attend in the neighbourhood of any manufactory at the dinner hour or the breakfast hour, or the hour of quitting the manufactory, and there obtain a knowledge of any of the men I wanted; ... if any person wanted to get any of my men away, to go abroad, he has only to watch at my gates as they come out and in, and get the names of the most able men; and many engagements of this sort have been made in this way.⁷⁷

Grenville Withers, a British machinist who migrated to work in Belgium, was sent back to Britain to recruit more workers. He explained how he would go up to individuals, and say to them: "I want a dozen workmen to take abroad, do you know any?" In this way he easily acquired recommendations that he could then approach.⁷⁸

Agents were used for the recruitment of mineworkers to work in the copper mines at El Cobre, near Santiago de Cuba, including men to install and work the engines.⁷⁹ In 1837, Hamilton Jenkins, representative in Cornwall of the Royal Consolidated Copper Mines company, was asked to find "a suitable person to go to Cuba as Engineer either permanently or temporarily". His first instinct was to

⁷⁵ Despatch from Lord John Russell to Sir George Gipps (Governor of New South Wales), London, 16th July 1841 (PP 1841 (2), iii, p.295).

⁷⁶ Evidence given by Thomas Marsden, 11th March 1841 (PP 1841 (I), vii, p.95).

⁷⁷ Evidence given by Alexander Galloway (engineer), 18th February 1824 (PP 1824 v., p.23).

⁷⁸ Evidence given by Grenville Withers, 10th March 1842 (PP 1841 (I) vii, p.88).

⁷⁹ Of 24 mine workers sent from Cornwall to El Cobre in June 1837, 3 were listed as 'enginemen' (Letter from Hamilton Jenkins to James Poindestre, 5th June 1837, Royal Institute of Cornwall (RIC), HJ/1/17); likewise, of the 15 sent in March 1838, 2 were 'enginemen' (Letter from Jenkins to Poindestre, 24th March 1838, RIC, HJ/1/17).

approach the engineering company that was building the steam engines for the mines.⁸⁰ However, Harvey & Co said that they “had no one of that description whom they could suitably spare”. Jenkins nevertheless asked Harvey to give him the benefit of his experience by making some suggestions of possible men,⁸¹ to whom he made individual approaches, taking great care that the person so employed could provide good testimonials as to his abilities. Harvey & Co suggested that whoever was engaged should spend “a few weeks at their foundry in inspecting, putting together [and] making the several parts of the engine”, rather than travelling “at once to Cuba for the purpose of superintending the erection of the engine house”.⁸² Hamilton Jenkins was not the only person attempting to recruit mineworkers from Cornwall at this time, but found himself in competition with others, including a North American agent, Mr Smith, acting on behalf of a New York based mining company, who was looking for some fifty workers to take to the company’s operations in Cuba.⁸³

Agents were also used to obtain *maquinistas* to work on the railways. In 1838, the chief engineer of the Havana-Güines line ordered four locomotives from Britain. He requested that Alexander Robertson, who was acting as both the chief investor and the British agent of the rail company, also find, along “with duplicates of machinery, Tools &c, &c”, four engineers “and as many machinists or men who understand the repair and construction of Locomotives”.⁸⁴ In February 1838, seventeen “mechanics” arrived in Havana for the Havana railroad, on board the brig ‘William Henry Angus’ out of London. They included the four “principal engineers”, five men who combined the skills of “machinist” with that of “blacksmith” or “boiler maker”, four “train drivers”, and four “rail layers”.⁸⁵ When Cruger successfully managed to switch from British to North American engines, he himself travelled to the United States, where he recruited three *maquinistas* along with his purchase of two locomotive engines.⁸⁶

⁸⁰ Letter from Hamilton Jenkins to Henry Harvey & Co, 14th January 1837 (RIC, HJ/1/17).

⁸¹ Letter from Hamilton Jenkins to Harvey & Co, 23rd January 1837 (RIC, HJ/1/17).

⁸² Letter from Hamilton Jenkins to William Leckie, 2nd February 1837 (RIC, HJ/1/17).

⁸³ Letter from Hamilton Jenkins to William Leckie, no date, 1836 (RIC, HJ/1/17).

⁸⁴ Report of Alfred Cruger, Cerro, 25th September 1836 (ANC, RCJF, 132/6453).

⁸⁵ ANC, RCJF 8/578.

⁸⁶ Report of Alfred Cruger, 21st May 1838 (ANC, RCJF, 131/6412).

Hamilton Jenkins discovered that a good way to recruit workers for Cuba was through the distribution of handbills.⁸⁷ Newspapers, with their wide circulation, were also found by many agents to be a useful method. Although Grenville Withers would personally approach potential emigrant *maquinistas*, he also told of how he would “advertise in the newspapers ...that I wanted men”. He found such advertisements to be particularly effective, and that whenever he placed one “500 or 600 came immediately, and I have a great choice”.⁸⁸ As a specialist engineering press developed in the mid-nineteenth century, papers such as *The Engineer* became used as bulletin boards for the recruitment of engineering workers. Numerous adverts appeared, along the lines of the following:⁸⁹

Wanted, to go to the Interior of New Granada, South America, an Engineer who thoroughly understands the Erection and Working of Smelting Furnaces and Ironworks, for the purpose of Erecting and Working a Small Works to be there established.⁹⁰

Mechanics Wanted for South America. – A Platelayer, a Smith, for Railway Contractor’s work; and a Man to keep in order Moulding and other wood working machinery.⁹¹

It was not just employers who advertised. Engineering workers themselves used such newspapers as a means of advertising their skills, in the hope of obtaining a position:

A Young Man wishes for a Situation to take charge of an Engine, and repairing of Machinery. No objection to the country.⁹²

Two Young Men, thoroughly versed in Mechanical Engineering, wish for ENGAGEMENTS to go Abroad to Erect and Superintend Engines and Machinery.⁹³

⁸⁷ Letters from Hamilton Jenkins to William Leckie, 12th July 1836 and 2nd February 1837 (RIC, HJ/1/17).

⁸⁸ Evidence given by Grenville Withers, 10th March 1841 (PP 1841 (I) vii, p.88).

⁸⁹ No adverts specifically mentioning Cuba have been found in the British press. This could either indicate the tendency for recruitment in Britain to be done through more direct means; or that many of those who arrived in Cuba had previously migrated to the United States. A search of US newspapers for adverts remains pending.

⁹⁰ Advert placed in *The Engineer*, 6th July 1860.

⁹¹ Advert placed in *The Engineer*, 26th October 1860.

⁹² Advert placed in *The Engineer*, 3rd December 1858.

⁹³ Advert placed in *The Engineer*, 23rd October 1857.

Workers, in particular those who were highly skilled such as the *maquinistas*, were unwilling to enter employment where no independence was allowed.⁹⁴ This made positions such as those on the sugar plantations highly attractive, since they facilitated escape from the controlling atmosphere of the engineering workshop to a context in which they were wholly in charge of the engineering work of the estate. They were “very willing to go abroad at high prices”,⁹⁵ which engineering workers could command if they were prepared to travel, which they often did “simply with the idea of bettering their condition”.⁹⁶ As William Jenkinson, an English machine maker, noted:

[W]ith the allurements that are offered them, there is no wonder that they go: they are induced to go, perhaps, from cheaper living, a little more liberty, and higher wages.⁹⁷

This was not just the case for engineering workers, but seems to have applied to skilled workers in general. For example, John Belshaw has found that British miners were attracted to jobs in Vancouver Island specifically through the promise of high wages,⁹⁸ and in order to attract “top quality miners” to El Cobre, Alfred Jenkin found it necessary to increase the wages that were on offer,⁹⁹ although in this case there was the added factor of news reaching Cornwall of the high mortality rates amongst foreign workers in Cuba.¹⁰⁰

It was common for agents to attract potential migrants by painting a picture that was not infrequently exaggerated of the life awaiting them at their destination, and were known to distribute inaccurate pamphlets advertising a particular country.¹⁰¹ This was the method used by the Brazilian consulate to attract agricultural migrants from Britain to colonise under-populated parts of Brazil,¹⁰² and many were not even

⁹⁴ John Belchem, *Industrialization and the Working Class: The English Experience, 1750-1900*, Aldershot: Scolar Press, 1990, p.168.

⁹⁵ Evidence given by Grenville Withers (engineer and machinist), 10th March 1841 (PP 1841 (I), vii, p.88).

⁹⁶ Evidence given by James Cox (machinist), 18th March 1841 (PP 1841 (I), vii, p.135).

⁹⁷ Evidence given by William Jenkinson (machine maker), 17th March 1841 (PP 1841 (I), vii, p.113).

⁹⁸ J. D. Belshaw, *British Coalminers on Vancouver Island, 1848-1900*, PhD Thesis, London School of Economics, 1987, p.183.

⁹⁹ Letter from Alfred Jenkin, 27th March 1838 (RIC, HJ/1/17).

¹⁰⁰ Letter from Hamilton Jenkins to William Leckie, 27th December 1838 (RIC, HJ/1/18).

¹⁰¹ Mörner, *Adventurers and Proletarians*, p.42.

¹⁰² Oliver Marshall, ‘Imagining Brazil: the recruitment of English labourers as Brazilian colonos’, in Marshall, *English-speaking Communities*, p.242.

made aware that they were going to a place that spoke a different language.¹⁰³ Skilled workers who emigrated to the United States might have been promised considerably higher wages than they could expect to earn in Britain, but were not told about the equally high cost of living. Many were unpleasantly surprised to discover industrial struggles very similar to the ones that had helped make life so difficult in Britain;¹⁰⁴ and that they were in effect being used “for the purpose of keeping down the price of labor”.¹⁰⁵ The Buffalo Branch of the Amalgamated Society of Engineers (ASE) in the United States warned their English headquarters that engineering workers were actually better off staying in England on half the wage that they could earn in the United States, since “rates of living are excessively high, clothing and rents, with other necessities exorbitant”.¹⁰⁶ In 1854, the ASE circulated a warning from the Montreal Branch against migrating to Canada “upon the faith of advertisements published in this country”:

Many disappointments have already occurred. Men who have arrived out there have found that wages are not nearly so good as they were led to expect, nor is there that chance of getting employment that they supposed.¹⁰⁷

In 1861, the ASE were again warning their membership, this time about working in South America. Engineering workers should be careful when signing their contract, ensuring that they should be paid in pounds sterling, since many were being caught out by disadvantageous exchange rates. Many engineering workers were also finding themselves stranded, with a contract that did not guarantee their passage home at the end of their engagement, or in case of ill health.¹⁰⁸ In 1866, engineering workers engaging to work in Russia were also being cautioned to be very careful with their contracts, due to horror stories emerging of workers engaged on one wage, only to find this progressively reduced once there.¹⁰⁹

Migratory reasons and paths

That the migrants were so readily attracted, despite the warnings, by the prospect of lucrative employment and improved prospects is not just an indication of their

¹⁰³ Marshall, ‘Imagined Brazil’, p.247.

¹⁰⁴ Erickson, *Emigration from Europe*, p.203.

¹⁰⁵ ASE, Monthly Report, March 1864, pp.14-16 (MRC, MSS 259/4/14/2).

¹⁰⁶ Letter from Buffalo Branch of ASE, 20th February 1864 (MRC, MSS 259/4/14/2, pp.14-16).

¹⁰⁷ ASE, Monthly Report, December 1854, p.409 (MRC, MSS 259/4/14/1).

¹⁰⁸ ASE, Monthly Report, August 1861, p.12 (MRC, MSS 259/4/14/2).

¹⁰⁹ ASE, Monthly Report, April 1866, p.22 (MRC, MSS 259/4/14/2).

ambition, but also of a number of negative factors in their homelands that stimulated their migration. For example, with class relations highly explosive in Britain during much of the period, emigrants were often drawn from those affected by industrial action,¹¹⁰ such as the Preston lockout of 1853-54, which affected many engineering workers in the cotton industry.¹¹¹

Although historians such as Asa Briggs have asserted that working class incomes generally increased throughout the nineteenth century,¹¹² others, such as Geoffrey Best, have found that this had more to do with contemporary upper and middle class perceptions, and that the increase did not really begin until after 1868.¹¹³ Poor living and working conditions were often given as an important reason for migration, as in the case of George Fewins, a British carpenter who migrated to the United States in the 1840s:

Sir, what made me leave England was distress. I could not gain a living for myself, wife and children. There was nothing more to look for but relief from the parish, if I had stopped in England.¹¹⁴

Unemployment was another possible reason behind migration. In 1841, William Jenkinson, a machine-maker from Salford, commented that engineering workers “would always rather stay at home, if we could offer them constant employment”.¹¹⁵ It was common for them to experience great instability in work, as later described by Thomas Wood:

I saw there was not work at the shop for the hands there were. I expected no favour such as staying and someone else leaving, so I was not surprised to receive my dismissal about two months after.

As a result of this, many “men were out of work or working short time,” and “the roads swarmed with beggars”.¹¹⁶ It was this that led to skilled workers ‘tramping’

¹¹⁰ Erickson, *Emigration from Europe*, p.185.

¹¹¹ ASE, Monthly Report, March 1854, p.310 (MRC, MSS 259/4/14/1).

¹¹² Asa Briggs, *The Age of Improvement*, London: Longmans, 1960.

¹¹³ Geoffrey Best, *Mid-Victorian Britain, 1851-1875*, London: Fontana, 1971, p.111.

¹¹⁴ Letter from George Fewins to the Overseers of Cheriton Bishop, Devon, 21st July 1850 (Devonshire Record Office, D.132 A/PO 40-45, in Erickson, *Emigration from Europe*, p.128).

¹¹⁵ Evidence given by William Jenkinson, 17th March 1841 (PP 1841 (I) vii, p.113).

¹¹⁶ Thomas Wood, *The Autobiography of Thomas Wood, 1822-1880*, in John Burnett (ed.), *Useful Toil: autobiographies of working people from the 1820s to the 1920s*, London: Allen Lane, 1974, p.309.

about the country in search of work, with mutual aid societies for particular trades set up to provide assistance to members arriving in a strange town.¹¹⁷

However, engineering workers were generally amongst the better paid, they lived in less cramped conditions than others, and were the group least likely to have recourse to the workhouse.¹¹⁸ This has led some labour historians to claim that such workers formed an 'aristocracy of labour', which progressively separated itself socially and politically from the mass of the working class.¹¹⁹ However, this has been challenged by others who argue that they became defensive and collaborationist not because of their strength, but in order to protect their insecure status.¹²⁰ Although between 1850 and 1875 unemployment amongst skilled trade unionists (engineers, metal and shipbuilding workers) only reached double figures on two occasions (in 1858 and 1868), poverty nevertheless continued to be a threatening presence.¹²¹ Before 1850, this was even more the case. In 1837-38, the Society of Journeymen Steam-Engine Makers gave relief to 32% of their membership, and again 23% during the depression of 1841-42. This latter crisis brought unemployment to half of all machinists and shipbuilders in Dundee.¹²² These conditions tended to push down the wages of those in employment. In 1842, Edward Smith (a journeyman engineer employed by Stothart & Pitt in Bath) complained of how little he earned, and how most of his wages went to pay for his lodgings, making it impossible for him to save. He commented in his diary:

Begin to think by Jove that I must bid Adieu to Old England for a short time and emigrate to the United States or New Zealand.¹²³

After a number of years tramping between jobs and cities in England, he eventually chose to emigrate to Australia.¹²⁴ This insecurity and surplus of engineering labour was also to be found in the United States. The North American *maquinista* William Bisby had passed through a wide selection of jobs, for which he had travelled around

¹¹⁷ 'The Tramping Artisan' in Eric Hobsbawm, *Labouring Men: Studies in the History of Labour*, London: Weidenfeld & Nicolson, 1986; also Burnett, *Useful Toil*, p.294.

¹¹⁸ Geoffrey Crossick, *An Artisan Elite in Victorian Society: Kentish London, 1840-1880*, London: Croom Helm, 1978, pp.110-3.

¹¹⁹ See, for example: Robert Gray, *The Aristocracy of Labour in Nineteenth Century Britain, c.1850-1900*, London: Macmillan, 1981; and Trevor Lummis, *The Labour Aristocracy, 1851-1914*, Aldershot: Scolar Press, 1994.

¹²⁰ Belchem, *Industrialization and Working Class*, p.166.

¹²¹ Belchem, *Industrialization and Working Class*, p.156.

¹²² Burnett, *Useful Toil*, p.294.

¹²³ Edward Snell, Diary, cited in John Cattell, 'Edward Snell's Diary: A Journeyman Engineer in Bath in the 1840s', *Bath History*, 9 (2002), pp.110-1.

¹²⁴ Cattell, 'Edward Snell's Diary', pp.122-3.

the eastern seaboard of the United States, before continuing south to Cuba, prompted by the unstable prospects he had experienced back home.¹²⁵ When Alfred Cruger travelled to the United States on behalf of the Havana-Güines railway, he had no trouble finding the *maquinistas* he required.¹²⁶

Migration does not just occur because of rational economic choices, following a careful calculation of the pros and cons of making the journey. In some cases the difference between staying and leaving might have been no more than a simple desire to see the world:

Why should not the workmen see and study the vast variety of climate, products, scenery, and races of men, which is necessary to awaken thought, elevate and expand the mind according to nature's design? Are the vast fields of the natural and moral sciences to be monopolised also? Who so much needed as the scientific workmen to study, comprehend, and apply to use the various production of nature? Who has, therefore, a better right to emigrate and travel? - or is more useful abroad?¹²⁷

In 1824, Thomas Lester, an engine-fitter, told of how many artisans migrated "merely to see the country".¹²⁸ When Edward Hodge travelled to El Cobre as a *maquinista* for the Consolidated Cobre Company, it was because "with a young man's restlessness" he "felt a desire to see something of the world".¹²⁹ As trans-Atlantic transport improved, this opened up greater possibilities for mobility for more than just the well to do:

It is now time for the working men of England no longer to leave the advantages presented by foreign countries to speculators and capitalists; the facilities of locomotion now are great and bind all nations together like one country.¹³⁰

In some ways, the migration of *maquinistas* to Cuba can be seen as an extrapolation of the already well-established tramping tendencies of engineering workers.¹³¹ While there were many who travelled to Cuba intentionally, often with pre-arranged jobs, others arrived almost by accident, as they pursued their journeys

¹²⁵ References held by William Bisby by various engineering companies (ANC, CM 51/1, p.417-429).

¹²⁶ Report of Alfred Cruger, 21st May 1838 (ANC, RCJF, 131/6412).

¹²⁷ Letter from 'Reformer' to the Editor (*The Beehive*, 26th December 1868).

¹²⁸ Evidence given by Thomas Lester, 5th March 1824 (PP 1824 v., p.123).

¹²⁹ Edward Hodge, *Reminiscences of a Veteran Engineer*, Capetown SA, n.d., MSS.

¹³⁰ Letter from 'Reformer' to the Editor (*The Beehive*, 28th November 1868).

¹³¹ Hobsbawm, *Labouring Men*.

from one job and place to another. Employment instability eventually led the North American *maquinista* William Bisby to take a position on the steam ship 'Southerner', which opened up to him the possibility of travelling overseas in search of work.¹³² Similarly, when the Drakes in Cuba bought a steamboat from the United States, with the intention of setting up a river service linking Sagua la Grande with the coastal ports, this had to be sent with a crew that included two *maquinistas*. Though contracted to continue working on the 'Colonel Jewett' (renamed 'Jején' in Cuba), the contracted workers, Mr Luthers and Mr Cook, would have quickly discovered the possibilities for further, and more lucrative, employment on the island.¹³³

In the first half of the nineteenth century, it was common practice for European steamboat owners to employ British *maquinistas*, often at very high wages. Grenville Withers described how he had travelled "on board 20 different boats on the Saone, the Rhone and the Mediterranean," and discovered that "the engineer was invariably an Englishman".¹³⁴ This was clearly also the case with Spain, and many foreign *maquinistas* found their way to Cuba in the 1850s and 60s as part of the crew of Spanish ships, both civilian and military. Thus in 1854, William Venning from Devon was "on board of one of the men o'war steamers".¹³⁵ John Davies, also British, was *maquinista* on the Spanish Screw Steamer 'General Armero'.¹³⁶ The Spanish Steamer of War 'General Lizo' had two foreign *maquinistas* on board - William Salmonds as chief, with Eleizar (alias Edward) Hume as second engineer.¹³⁷

The complex migratory paths taken by many *maquinistas* can be seen in the number of adverts placed by those who not only had "no objection to go abroad",¹³⁸ but who already had experience of working in another country:

Wanted an Engagement, by a Person thoroughly conversant with Machinery and Steam, to go abroad, either to erect or superintend

¹³² Letter of reference for William Bisby written by James P. Allaire, New York, 29th October 1841 (ANC, CM 51/1, p.416).

¹³³ Letter from James Drake to Henry Coit, Matanzas, 1st December 1841 (MC, MF, 234/1/21).

¹³⁴ Evidence given by Grenville Withers, 10th March 1841 (PP 1841 (I) vii, p.89).

¹³⁵ Letter from Joseph T Crawford to Earl of Clarendon, Havana, 19th October 1854 (PRO, FO 72/852, No.45).

¹³⁶ Letter from James Forbes to General Joaquin M de Medinilla, Santiago de Cuba, 22nd September 1852 (PRO, FO 453/7).

¹³⁷ Letter from Crawford to Earl of Clarendon, Havana, 27th May 1854 (PRO, FO 72/852, No.22).

¹³⁸ Advert carried in *The English Mechanic and Mirror of Science*, 1866 and 1867.

machinery of any kind. The advertiser has been used to foreign parts.¹³⁹

A Mechanical Engineer wishes for an Appointment either at home or abroad. He has had great experience both in the erection and superintendence of locomotive and other railway machinery, and has excellent testimonials from both English and French engineers, having been employed for some time abroad.¹⁴⁰

The Advertiser is anxious to make an ENGAGEMENT TO GO ABROAD. Has been in South America for the last three years, erecting machinery. Is well acquainted with marine and other engines.¹⁴¹

Wanted, by a Practical Engineer and Machinist, an Engagement, either at home or abroad, to take charge of an engine and machinery, and do all repairs. He has had great experience in erecting cast brass work, and work at the forge; he is also well acquainted with the construction and working of agricultural engines and machinery, and would be found a useful man where a variety of machinery is employed, or to those exporting machinery.¹⁴²

Although no adverts relating specifically to *maquinistas* in Cuba have been found, the above provide an indication of the migratory milieu of which they were a part.

Many British engineering workers had already migrated to the United States,¹⁴³ where, because of their experience, “the head men in some of the large concerns are either Scotch or English”.¹⁴⁴ That there was very little direct migration between Britain and Cuba can be seen in the figures for emigration. In 1843, of the 4,327 who emigrated from the Port of Glasgow, only three went to Cuba.¹⁴⁵ In 1846, only 61 Britons emigrated to the non-British West Indies as a whole, out of a total number of 129,851 – all of them travelling from Glasgow or Liverpool.¹⁴⁶ The following year, only 53 so migrated, from Liverpool, Newport and Glasgow, out of a total of 258,270.¹⁴⁷ However, in 1851, an Irish machinist and an English engineer were amongst those

¹³⁹ Advert placed in *The Engineer*, 19th August 1859.

¹⁴⁰ Advert placed in *The Engineer*, 10th December 1858.

¹⁴¹ Advert placed in *The Engineer*, 28th September 1860.

¹⁴² Advert placed in *The Engineer*, 21st October 1859.

¹⁴³ Evidence given by Alexander Jones (PP 1841 (I) vii, p.205).

¹⁴⁴ Evidence given by James Cox, 18th March 1841 (PP (I) vii, p.133).

¹⁴⁵ *Glasgow Herald*, 29th January 1844.

¹⁴⁶ PP 1849 xvi, pp.1088-1089.

¹⁴⁷ PP 1849 xvi, pp.1090-1091.

captured following Narciso Lopez's failed invasion of Cuba.¹⁴⁸ They had been recruited for the expedition in New Orleans, to which they had earlier migrated in search of work.¹⁴⁹ Patrick Doherty, an Irish *maquinista* from Donegal working on the Havana-Güines railway, had also been recruited in New Orleans, though not with such warlike intent.¹⁵⁰ At least three of the British *maquinistas* caught up in the *Escalera* trials of 1844 had emigrated from Britain some time previously, working in the United States before finding their way to Cuba. The Scot Donald McIntosh arrived in 1841 with a passport from the Spanish Consul in New York, having been contracted to work on the Regla steamboats.¹⁵¹ Robert Highton, from Liverpool, and Daniel Downing, from Ireland, had already made each other's acquaintance before setting foot in Cuba, having both worked in the same workshop and foundry in New York.¹⁵² Not just *maquinistas*, but also other engineering-related workers arrived in Cuba along such paths. Robert Waugh was born in Durham, England, but migrated to the United States around 1845, where he worked as a boiler-maker in a New Orleans iron work factory that constructed boilers and mills for sugar mills throughout Louisiana and the Caribbean. He travelled frequently to Cuba to work on sugar plantations, dying on the 'Porvenir' sugar estate, killed in a rebel raid in 1877.¹⁵³

A lively internal labour market for *maquinistas* quickly developed in Cuba, as burgeoning sales of steam engines and sugar machinery brought a rapid increase in their demand. Those already established in the island provided a route in for others eager to work there, often seeking out opportunities for them, or employing them themselves if they had succeeded in saving the necessary capital to set up on their own. It was in this way that William Whitehorn left Britain "in order to fit up machinery in Cuba", contracted by the veteran *maquinista* Edward Beanes.¹⁵⁴ Joel Watts travelled to

¹⁴⁸ The disaffected army officer, Narciso López, led three attempted invasions of the island, in the late 1840s and early 1850s. Support was obtained from elements seeking annexation of the island to the United States, which may have had much to do with the failure of the invasions to garner much popular support in Cuba (see Herminio Portell Vilá, *Narciso López y su época*, 3 vols, Havana: Compañía Editora de Libros y Folletos, 1930-58).

¹⁴⁹ Letter from Marqués de Miraflores to Captain General of Cuba, Madrid, 13th November 1851 (ANC, Asuntos Políticos (AP), 122/23).

¹⁵⁰ Letter from Patrick Doherty to David Turnbull, Bejucal, 16th May 1841 (PRO, FO 72/585, No.56).

¹⁵¹ Interrogation of Donald McIntosh, Matanzas, 2nd September 1844 (ANC, CM 51/1, pp.117-120).

¹⁵² Interrogations of Robert Highton and Daniel Downing, 21st April 1844 (ANC, CM 51/1, pp.315-21).

¹⁵³ Personal communication from Jorge Piñon, great great grandson of Robert Waugh, 2nd September 2001.

¹⁵⁴ Letter from Wodehouse to Crawford, London, 16th April 1853 (PRO, FO 72/830, No.6); Letter from Crawford to Earl of Clarendon, Havana, 13th June 1854 (PRO, FO 72/830, No.24).

Cuba having been assured by Henry Elkins, who was already established on a sugar estate, that he would have secured employment there, possibly with Elkins himself, or at least arranged through him. On his arrival the job that he thought was waiting for him proved not to exist, but he nevertheless found work in the Foundry in Havana, although he continued to pressure Elkins to come through as promised.¹⁵⁵

Others took advantage of the commercial networks, through which much of the machinery was being channelled. Thus William Bisby travelled to Cuba from the United States without a pre-arranged job, calling upon William Zellweger of Drake Brothers & Co. to try to find him a placement.¹⁵⁶ Although Zellweger was not successful in helping him, Bisby managed to find employment without too much difficulty, carrying as he did a reference from the Providence Steam Engine Company, where he had been previously employed.¹⁵⁷ Henry Coit sent *maquinistas* to Cuba with letters of recommendation. In 1841, three such presented themselves to Pedro Diago, who contracted one of them, a Mr Leonard, to inspect some of his newly installed machines, considering him to be very able.¹⁵⁸

By the 1860s this job market was well established, with *maquinistas* often passing from one job to another based on word of mouth recommendations,¹⁵⁹ placing adverts in the local press, or directly approaching potential employers. In 1843, a British *maquinista*, John Wells, arrived in Santiago de Cuba. "Having failed in obtaining occupation in this place", he advertised himself in the local newspaper in the hope of finding employment in Trinidad.¹⁶⁰ In 1844, a German *maquinista* advertised his services shortly after his arrival, claiming "to already know the country and its language having been six years in the island".¹⁶¹ In 1858, when a steam dredger was bought for Matanzas bay, Sebastian Ross, who had formerly been a *maquinista* on a

¹⁵⁵ Letter from Joel Watts to Henry Elkins, Matanzas, 6th December 1842 (ANC, CM, 51/1, pp.277-278).

¹⁵⁶ Letter from William Zellweger to William Bisby, Havana, 22nd February 1842 (ANC, CM, 51/1, p.417).

¹⁵⁷ Letter of reference for William Bisby, written by John Babcock, 7th August 1837 (ANC, CM, 51/1, p.416).

¹⁵⁸ Pedro Diago to Henry Coit, 6th February 1841 (BNJM, Lobo 111, Vol.1).

¹⁵⁹ BNJM, Sociedad T.34, No.1a.

¹⁶⁰ Letter from British Consul to General Juan Tello, Santiago de Cuba, 23rd March 1843 (PRO, FO 453/4).

¹⁶¹ Advert placed in *El Faro Industrial de la Habana*, 3rd November 1844.

Spanish steam ship, applied directly to the Junta de Fomento to take charge of the boat.¹⁶²

As more and more foreign *maquinistas* gained experience of the country, their presence made the necessity for the engine manufacturers to provide artisans less pressing. As early as 1838, Pedro Diago was telling William Kemble of the West Point Foundry that he would not need him to send out a *maquinista* with his new machinery, since he was already in agreement with the man who had mounted the machinery of José Fernández, “and this one has the advantage for me that he speaks Spanish, and has experience of this country”.¹⁶³ Although Baring Brothers intended to send Mr Caird, a favourite *maquinista* of theirs, to oversee the installation of the new steam engine and mill on the ‘Arroyo’, “that he may point out what is required to be done”,¹⁶⁴ he himself declined the position, recommending that they should simply employ Mr McLeod, the *maquinista* already working on the estate, “saying he knew he was as competent as any man we could find”. Besides, Caird had no need to accept, since he had more than sufficient engagements to keep him occupied.¹⁶⁵

The Journey

Those *maquinistas* who were heading for specific jobs in Cuba, having been contracted at the same time as new machinery was purchased, often travelled with that machinery. Since they were to be responsible for the equipment, and given the uncertainties of ocean travel, by travelling with it they ensured that once in Cuba they were not either waiting for the engine to arrive, nor themselves being waited for. When John Pearce was sent out as *maquinista* for the mines at El Cobre, he accompanied the engine, waiting with it in Swansea so as to sail together.¹⁶⁶ Frederick Huth & Co not only purchased railway machinery on behalf of Joaquín de Arrieta, but also arranged the passage and passport of the *maquinista* Mr Lewis, who was to work

¹⁶² AHN, UCF, 35/2, No.35.

¹⁶³ Letter from Pedro Diago to Henry Coit, Cambre, 9th April 1838 (BNJM, Lobo 111, Vol.3) – my translation.

¹⁶⁴ Letter from Baring Brothers & Co to Storey, Spalding & Co, London, 19th August 1851 (BA, LB 22, No.231).

¹⁶⁵ Letter from Storey, Spalding & Co to Baring Brothers & Co, Havana, 14th November 1851 (BA, HC 4.6.10, No.65).

¹⁶⁶ Letter from Hamilton Jenkins to William Leckie, 31st March 1837 (RIC, HJ/1/17).

on the line that Arrieta was building. Lewis travelled with the machinery, also from Swansea.¹⁶⁷

The journey taken by the migrants in reaching Cuba was, in the mid-nineteenth century, still a long one. In the 1830s, it could take two months for a ship to travel from Britain to Cuba.¹⁶⁸ However, transport was improving, especially if the traveller was prepared to play with the possibilities opened up by the growing network of routes. When David Turnbull travelled to Cuba in 1840 he prudently decided not to take the nominally more direct route from England, cutting the journey time in half by travelling first to Nova Scotia, then to the United States, and from there to Havana.¹⁶⁹ The reason why the more roundabout route was in fact the shortest was because of the demands on British packets to cater to the needs of all their outposts in the Caribbean. The Royal Mail Steam Packet in which the merchant A. Guillermin returned to Havana in 1845 “took me to a great many places besides that where I was bound,” leading to a journey time of five weeks.¹⁷⁰ By the 1860s many more routes had been opened up, making travel to Cuba considerably easier. There was a fortnightly service of Spanish mail steamers that ran from Havana to Cadiz, and to St Thomas via Santo Domingo and Puerto Rico. Another line ran to Sisal and Vera Cruz in Mexico, and yet another to Colón (Panama) via Jamaica. There were American steam ship lines from Boston, New York, Baltimore, Philadelphia and New Orleans; and the British still maintained their monthly mail steamers, as did the French, so providing a “means of communication with Europe, the West Indies and the Pacific”.¹⁷¹ In addition to the increasingly inclusive telegraphic system, enabling almost instantaneous communication across, and up and down, the Atlantic, postal routes were improving alongside the growing number of passenger ship routes. However, although New York could be reached from Havana in just five days by steamer,¹⁷² in the 1860s a letter could still take four weeks to travel from Britain to Cuba.¹⁷³

¹⁶⁷ Letter from Frederick Huth & Co to Joaquín de Arrieta, London, 1st March 1843 (UCL, FH, Vol.175).

¹⁶⁸ *El Noticioso y Lucero de la Habana*, 16th September 1832.

¹⁶⁹ Letter from Turnbull to Palmerston, Havana, 10th November 1840 (PRO, FO 72/559, No.1).

¹⁷⁰ Letter from A Guillermin to Joshua Bates, Havana, 11th March 1845 (BA, HC 4.6.2 (Part 2), no.236).

¹⁷¹ Letter from Crawford to Lord Stanley, Havana, 31st December 1867 (PRO, FO 72/1189, No.3).

¹⁷² Ely, *Cuando reinaba...*, p.294.

¹⁷³ *Post Office Annual Directory, 1864-65*, Glasgow.

The reality of the migration journey in the nineteenth century could be a traumatic one for many. In Britain, Liverpool was the most important emigration port for the Americas,¹⁷⁴ and contemporary observers commented on how as soon as prospective émigrés arrived they became the victim of attempts to remove as much cash as possible from them. They would be beset by ‘mancatchers’, employed on a commission basis to draw emigrants into lodging houses, or to sell them ‘necessary’ articles of clothes and food, of an inferior or unusable quality. Then there were the ‘runners’, who were often fraudulent agents of passenger brokers, who for a commission would tout tickets from different companies, which often did not exist:¹⁷⁵

The business of these people is, in common parlance, to ‘fleece’ the emigrant, and to draw from his pocket, from fair means or foul, as much of his cash as he can be persuaded, inveigled, or bullied into parting with.¹⁷⁶

The trauma for many emigrants was only just beginning, and what they suffered on shore was but a foretaste of the ill treatment awaiting many of them on the ship itself:

There was no regularity or decency observed with regard to taking the passengers on board the ship; men and women were pulled in any side or end foremost, like so many bundles... The porters, in their treatment of passengers ...heap upon them all kinds of filthy and blasphemous abuse, ...and the officers of the ship [take] the lead in the ill-treatment of the passengers.¹⁷⁷

In 1849, the British Parliament passed the Passenger Act, which was intended to improve conditions for emigrants. This specified the minimum quantity of food and water to be provided for each traveller, and limited the number of passengers according to the available space.¹⁷⁸ However, conditions in the Atlantic crossing continued to be very poor, and inspections were difficult to carry out once a ship had left port.¹⁷⁹ The Irish philanthropist, Vere Foster, travelled on one such ship in 1850:

The serving out of water was twice capriciously stopped by the mates of the ship, who during the whole time, without any provocation, cursed and abused, and cuffed and kicked the passengers and their tin cans...

¹⁷⁴ Butel, *The Atlantic*, pp.223-33.

¹⁷⁵ Erickson, *Emigration from Europe*, p.250-1.

¹⁷⁶ *Morning Chronicle*, 15th July 1850.

¹⁷⁷ Letter from Vere Foster, 1st December 1850, Emigrant ship ‘Washington’ (PP 1851 xl, pp.434-9).

¹⁷⁸ Erickson, *Emigration from Europe*, pp.248-9.

¹⁷⁹ Erickson, *Emigration from Europe*, p.255.

...I hear occasionally some of the passengers complain to the first mate or to the captain, of the favouritism shown by the passengers' cooks to those who give them money, or whisky, and who consequently get five or six meals cooked daily, while those poor passengers who have not the money to give, or who do not give, are kept the whole day waiting to have one meal cooked, or can have only one meal cooked every second day.¹⁸⁰

Even at the end of the century, the trans-Atlantic voyage, for all that it had become relatively inexpensive and accessible for many, was nevertheless, at least for the poor migrants who travelled steerage, "a gruelling test to undergo".¹⁸¹

The worst migrant stories relate to the very poor. Skilled migrants such as the *maquinistas*, who were not only considerably better off but were often contracted by wealthy planters or engineering companies, are likely to have had a rather more pleasant experience. While those who travelled first to the United States before migrating to Cuba might have shared some of the traumatic experience of the journey,¹⁸² those who travelled directly to the island would not have had to put up with such cramped conditions, since the numbers travelling along this route were far smaller. They might have experienced complication due to bad weather (and most tried to travel before or after the hurricane season, to minimise the risk of shipwreck), but the journey seems generally to have been a much more relaxed affair. Edward Hodge later reminisced about the voyage he made in the sailing ship 'Hampshire':

[T]o none does he look back with greater pleasure than to his twice crossing the Atlantic in this good old sailing vessel, although there were neither smoking room, music room, nor bar, while concerts and fancy dress balls were unknown.

Here there were none of the torments inflicted on passengers on the emigrant hulks, with the Captain "imitating man of war customs as far as practicable". The only time anything was done about which complaints might have been made was on Sundays, when all were quietly obliged to participate in a religious service.¹⁸³

¹⁸⁰ Letter from Vere Foster, 1st December 1850, Emigrant ship 'Washington' (PP 1851 xl, pp.434-9).

¹⁸¹ Butel, *The Atlantic*, p.180.

¹⁸² Given the importance of the central Liverpool-New York route, which was at the heart of the nineteenth century Atlantic system and along which could be found the heaviest shipping traffic, it would have been hard to avoid travelling to New York before heading down to Cuba (Butel, *The Atlantic*, pp.223-33).

¹⁸³ Hodge, *Reminiscences*.

For the *maquinistas*, weathered to the urban environment in which most had worked before travelling to Cuba, the sea journey would have been their first taste of the exotic new experiences that awaited them. Edward Hodge described how, having “first ...sighted Ireland”, no land was seen for sixty days, “nothing but sky [and] water”:

Only Tom Cringle or Clark Russell could adequately describe the joy of running into the West Indies before the N. E. Trades, everything drawing from royal stunsails down, the wind so steady as to require no other attention to the sails than an occasional touch on the braces, the ship doing twelve knots, with a grand sea curling up astern, dark as indigo in the trough, fining away to a clear green near the crest, and then tumbling over in a wreath of foam as it raced past the ship’s counter.

Hodge recounted how the long days were passed by, in which as well as “the usual simple amusements”, the passengers might be amused by the antics of the crew:

[A] monster Atlantic shark was got on board, from whose hold the boatswain neatly extracted a handful of buttons, formerly worn by a shipmate, who was lost overboard in the vicinity, some time previously. Then I was shown an interesting experiment illustrating the enormous pressure the sea exerts at any considerable depth. A number of closely corked stone porter jars were lowered at the end of a deep sea line, and all came up filled, the pressure forcing the water through the material.¹⁸⁴

Arrival in Cuba

Eventually land would come into sight once more. James Herring of Polgrath, travelling to Santiago de Cuba from Cornwall to work in the mines, kept a diary in which he recounted seeing “what looked like a big cloud rising above the horizon, and that was Hayti [sic]”. The following day he “saw what looked like a low cloud off our starboard bow, and the sailors said that is Cuba”. “It gradually became more distinct and soon we could see the high hills. Covered with verdure of the richest Coloring”.¹⁸⁵

Arrival in the tropics

Some parts of Cuba (in particular along the northern coast, outside of the major conurbations; and in districts favoured by the more temperate conditions proffered by surrounding hills) were long renowned to offer a good climate, especially for

¹⁸⁴ Hodge, *Reminiscences*.

¹⁸⁵ James Herring, *Diary*, unpublished MSS, n.d.

tuberculosis sufferers,¹⁸⁶ those in the know recommended others to try to reach the island “not ...sooner than the end of November”. The reason given was that the climate was “most perniciously and fatally unhealthy” during the summer months, but would by then have improved considerably.¹⁸⁷ Although mid-nineteenth century immigrants from Europe and North America would have been familiar with the Cholera and Typhoid epidemics that periodically the cities from which they came,¹⁸⁸ disease had always been a particular problem in Cuba.¹⁸⁹ A number of notable epidemics ravaged Cuba during the mid-nineteenth century, which, combined with hurricanes and earthquakes, prompted local commentators to observe “that our Island has become more susceptible to misfortunes, than in past years”.¹⁹⁰ Havana became especially notorious for its insalubrity, exacerbated by the swelling population, which more than doubled in just forty years, from 94,023 in 1827 to 211, 696 in 1869:¹⁹¹

Cholera, fevers of a pernicious kind & small pox are the prevailing sickness, which have increased of late the mortality in this place.¹⁹²

There were some improvements made to the capital in the mid-nineteenth century, partly aimed at improving health. However, as Alexander Humboldt remarked in 1856 following his visit to Cuba:

the effects of these changes can only be really observed among the native population, for foreigners, who go there from Europe and North America, must suffer from the general influence of the climate, and they will continue to suffer even though the streets were as carefully cleaned as could be desired. The sea-shore has such an influence, that even natives of the island who reside in the country, far from the coast, are subject to attacks with the yellow fever when they visit Havana.¹⁹³

¹⁸⁶ Ely, *Cuando reinaba...*, p.33; Anonymous, *A Winter in the West Indies and Florida*, New York, 1839; Wurdermann, *Notes on Cuba*, 1844; Dr R. W. Giggs, *Cuba for Invalids*, New York, 1860.

¹⁸⁷ Letter from Joseph T. Crawford to Earl of Malmesbury, Havana, 1st July 1858 (PRO, FO 72/944, No.36).

¹⁸⁸ For example, see John Duffy, *The Sanitarians: A History of American Public Health*, Urbana: University of Illinois Press, 1990; and Anthony S. Wohl, *Endangered Lives: Public Health in Victorian Britain*, London: J. M. Dent, 1983.

¹⁸⁹ José López Sánchez, *Cuba, medicina y civilización: siglos XVII y XVIII*, Havana: Editorial Científico-Técnica, 1995.

¹⁹⁰ Letter from Adot, Spalding & Co to Baring Brothers & Co, Havana, 9th September 1852 (BA, HC 4.6.10, No.93).

¹⁹¹ Casanovas, *Bread, or Bullets!*, p.24. See also Martínez-Fernández, *Fighting Slavery*, pp.120-5.

¹⁹² Letter from Adot, Spalding & Co to Baring Brothers & Co, Havana, 14th September 1852 (BA, HC 4.6.10, No.94).

¹⁹³ Humboldt, *Island of Cuba*, 1856, p.117.

Of all the tropical diseases prevalent in Cuba, yellow fever had always been “the most impressive and spectacular, that which provoked the most fear”.¹⁹⁴ Unlike cholera and small pox, which occurred intermittently as epidemics, this was endemic to the island, annually recurring without fail. It was the single biggest killer, causing 37% of all deaths in Havana in 1857.¹⁹⁵ However, this was by no means constant throughout the year. As Figure 2 shows, during the earlier months of the year, the four other big killers (tuberculosis, internal inflammation, typhoid fever and dysentery/diarrhoea) had a greater significance.

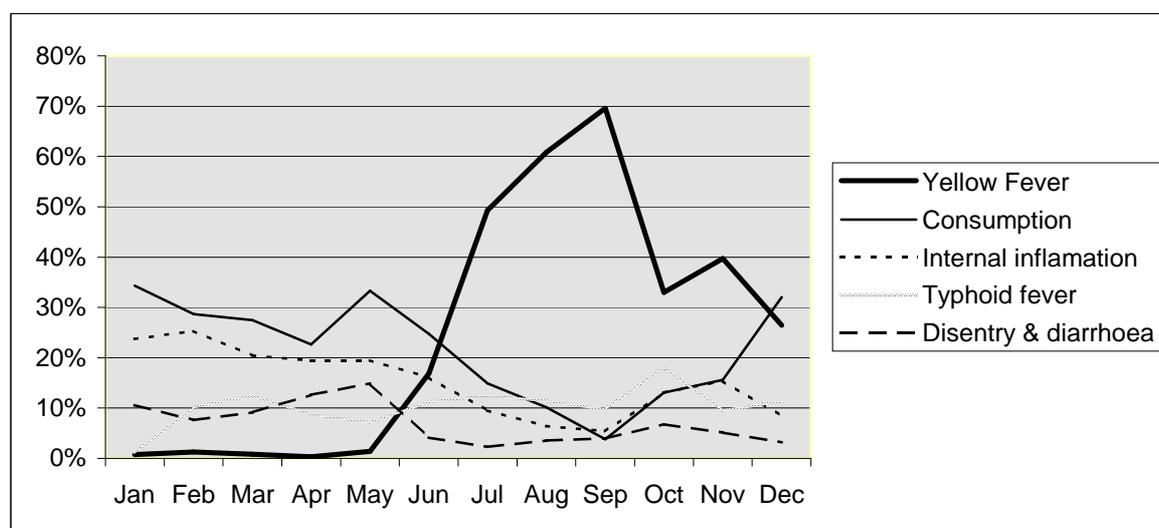


Figure 2 - Proportion of major diseases amongst all deaths (Havana 1857)

(Source: Based on data obtained from PRO, FO 72/944, No.33)

It was from May onwards, reaching a peak around August and September, that yellow fever was to be feared the most. Around half of all deaths occurred in the months of July to September, largely due to the catastrophic levels reached by this disease, as Figure 3 shows. The British Consul General, Joseph Crawford, felt it necessary to request permission to take a longer than usual three month leave of absence over the summer,¹⁹⁶ going to great lengths to demonstrate how much more dangerous Havana was than even the famously disease-ridden Southern ports of the United States:

¹⁹⁴ López Sánchez, *Cuba, medicina, civilización*, p.151.

¹⁹⁵ Letter from Joseph T. Crawford to Earl of Malmesbury, Havana, 5th June 1858 (PRO, FO 72/944, No.33).

¹⁹⁶ Letter from Crawford to Malmesbury, Havana, 9th September 1858 (PRO, FO 72/944, No.43).

[T]he statistics of Havana ...clearly proved this to be a much more dangerous and unhealthy climate than either New Orleans, Mobile, Savannah or Charleston. At none of these places is Yellow Fever so prevalent nor so fatal as it is here in Cuba. It is only occasionally an Epidemic in those places, whereas here, it is sure to make it's [sic] ravages every year in a most alarming manner.¹⁹⁷

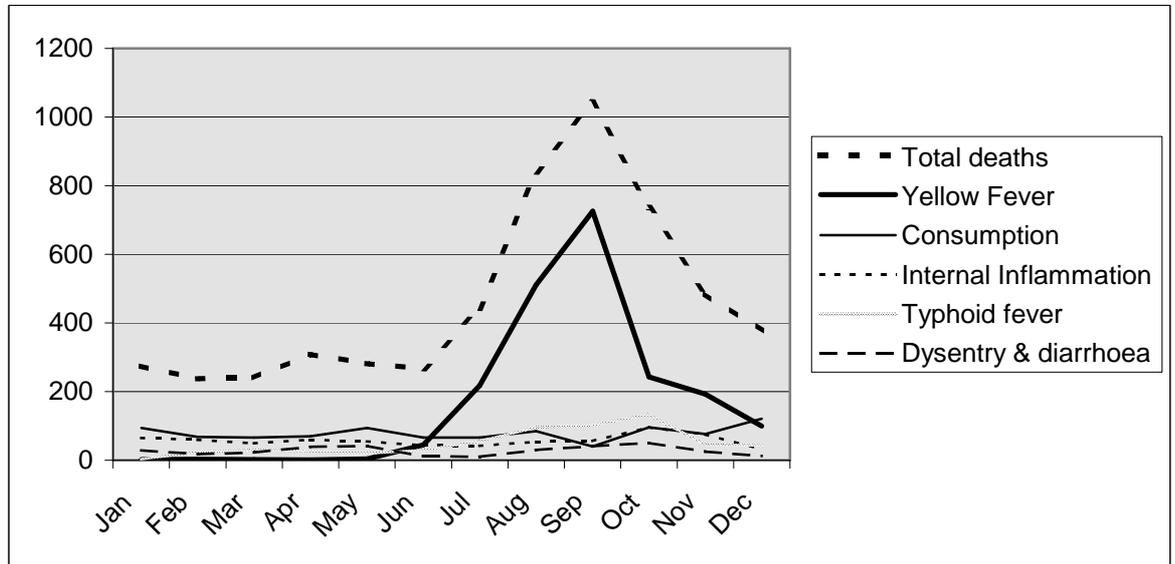


Figure 3 - Incidence of major causes of death (Havana, 1857)

(Source: Based on data obtained from PRO, FO 72/944, No.33)

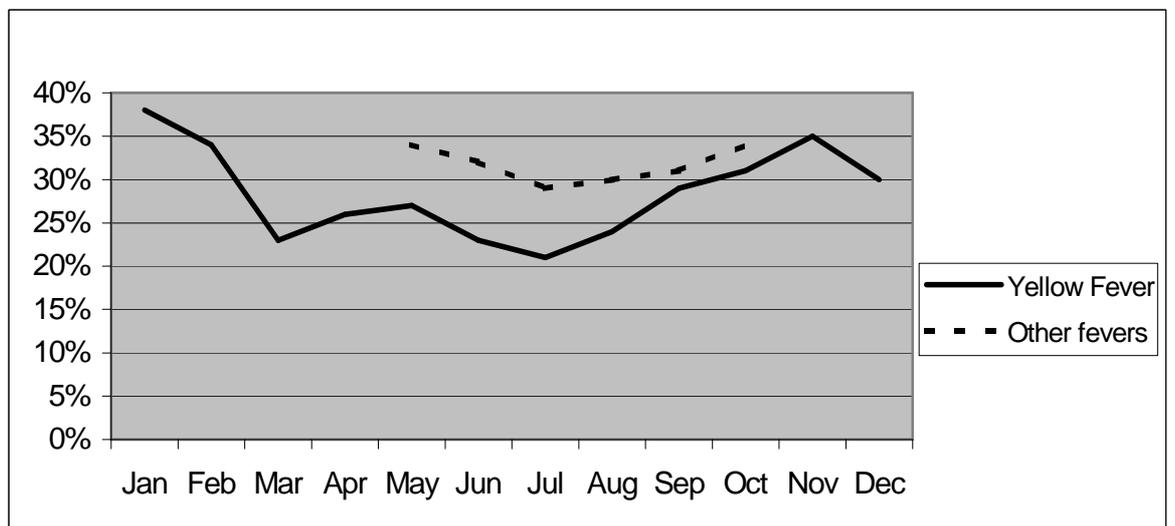


Figure 4 - Average mortality from yellow and other fevers (Havana, 1850s)

(Source: Based on data obtained from PRO, FO 72/989, No.10; FO 72/944, No.44)

¹⁹⁷ Letter from Crawford to Earl of Malmesbury, Havana, 5th June 1858 (PRO, FO 72/944, No.34).

Grave though the problem was, most people did recover, and while many people contracted the disease, those that did were less likely to die than those with other feverous conditions. As Figure 4 shows, recovery rates were in fact better in the summer months than at other times of the year.

This was the first hurdle that faced many migrants reaching the island.¹⁹⁸ A large proportion of yellow fever cases were of foreigners, generally those who had newly arrived. As Table 5 shows, foreign sailors alone accounted for 15% of all cases in Havana in 1857. Although their recovery rate appears to have been better than the native population, they were far more likely to succumb to disease in the first place. In 1862, Frederick Fowler Bankhardt, working as superintendent of the smelting works established in El Cobre by the Cobre Consolidated Mining Company, died “a victim to the endemic disease of this island”.¹⁹⁹ The *maquinista* Albert Harvey, working in the same mines, died of yellow fever, and was buried in the cemetery at El Cobre, along with more than three hundred other Cornish workers.²⁰⁰

Table 5 - Incidence of yellow fever amongst foreign sailors (Havana, 1857)

(Source: Based on data obtained from PRO, FO 72/944, No.43)

	Cases	% of total	Deaths	% of total	Mortality
British	219	2.4%	58	2.2%	26%
American	585	6.5%	137	5.2%	23%
French	189	2.1%	45	1.7%	24%
Other non-Spanish	419	4.6%	76	2.9%	18%
Total in Havana	9058		2621		29%

Foreign *maquinistas* working on Spanish steamships frequently complained of the noxious effects of the Cuban climate. In 1856, the wife of Thomas Holiday begged the British government to intercede on his behalf to secure his release from his contract, “having seriously suffered from the climate of Cuba”.²⁰¹ Robert Irvine was not so

¹⁹⁸ On the often devastating effect of tropical diseases on migrants in the nineteenth century, see Philip D. Curtin, *Death by Migration: Europe's encounter with the tropical world in the nineteenth century*, Cambridge: Cambridge University Press, 1989.

¹⁹⁹ Letter from Richard Hudson Beattie to Earl Russell, Santiago de Cuba, 10th September 1862 (PRO, FO 72/1041, No.15).

²⁰⁰ Personal communication received from Guillermo Luis Pérez del Castillo, 8th August 2001.

²⁰¹ Letter from Wodehouse to Crawford, London, 24th March 1856 (PRO, FO 72/902, No.10).

fortunate, dying shortly after arriving in Santiago de Cuba in November 1856.²⁰² Eliezar Hume, a British *maquinista* on the Spanish war steamer 'General Lizo', died of yellow fever while in Havana in August 1853;²⁰³ as did John Wootton, Chief Engineer on the 'Bazan', in Santiago de Cuba in 1855, leaving "two sealed trunks [and] a Hat-box" to be sent back to his family in Southampton.²⁰⁴ There are countless such cases, most of which have the tragedy of occurring shortly after the arrival of the migrant concerned. John Hinton Shekell, who was just passing through Havana on his way home to England from Jamaica, "was taken ill of malignant fever on the same day" that he arrived, and died in his hotel room.²⁰⁵ The British *maquinista* George Whish died of yellow fever in Havana in January 1858 (an unusual winter case), before he could reach the estate on which he was to work.²⁰⁶

Had Whish succeeded in getting into the countryside, he would almost certainly have been safe from yellow fever, which only really afflicted the coastal towns. But even had he done so, the dangers did not end there. Throughout the mid-nineteenth century, cholera epidemics swept through rural districts, and was a constant source of nervousness. The merchants J. C. Burnham & Co. reported that in 1850:

We are still in a good deal of uncertainty and alarm as to the Cholera. It is still spreading in some parts of the Island and should it become general there is no knowing the destruction it w[oul]d cause.²⁰⁷

In November 1853, "all the inhabitants that could" fled from Sagua la Grande as cholera approached.²⁰⁸

Immigration into Cuba

The foreign *maquinistas* could not simply turn up in Cuba, and go straight into whatever employment was waiting for them. The Spanish authorities maintained strict immigration rules that, while often bent in the observance, at least on paper had to be adhered to. All foreigners on arrival, and before disembarkation, had to present

²⁰² Letter from Beattie to Mrs Hudson, Santiago de Cuba, 8th November 1856 (PRO, FO 453/8).

²⁰³ Letter from Crawford to Earl of Clarendon, Havana, 27th May 1854 (PRO, FO 72/852, No.22).

²⁰⁴ Letter from James Forbes to Joseph Hodgkinson, Santiago de Cuba, 28th July 1855 (PRO, FO 453/8).

²⁰⁵ ANC, GSC, 852/28735.

²⁰⁶ Letters from Crawford to Lord John Russell, Havana, 3rd May 1860 (PRO, FO 72/989, No.13); and 28th September 1861 (PRO, FO 72/1013, No.44).

²⁰⁷ Letter from J C Burnham & Co to Baring Brothers & Co, Havana, 26th July 1850 (BA, HC 4.6.8 (Part 1), No.47).

²⁰⁸ Letter from J C Burnham & Co to Baring Brothers & Co, Havana, 9th November 1853 (BA, HC 4.6.8 (Part 2), No.125).

their passports to the local officials, along with valid visas issued by the Spanish consular representatives in whichever country they were coming from. This would entitle them to a *boleta de desembarco*, a disembarkation ticket. Then they had to present themselves, within the first twenty-four hours, in the Governmental offices. This was if they were white. If coloured, they had to remain on board, unless they were naturals of Spanish possessions coming to reside in Cuba, in which case they could land only if security were paid on their behalf.²⁰⁹

For those who wished to live in Cuba for longer than three months, it was necessary for them to domicile themselves.²¹⁰ This involved applying to the Captain General of the island for a *carta de domicilio*, which granted them permission to reside in the island for longer than three months, working in commerce or in any “useful industry”. Failure to do so could lead to a fine of from 50 to 1000 pesos, and deportation.²¹¹ Although technically this should have been granted without any payment involved, a charge was often made as the authorities took advantage not only of the ignorance of many of the migrants, but also the fact that they were often bound for very well-paid jobs. For many this was only \$2,²¹² but cases were reported of migrants being forced to pay as much as \$17 for the privilege.²¹³ Once granted, the domicile letter remained valid for five years, “after which they are called upon to become naturalised”.²¹⁴ If during that time the domiciled migrant wished to move to a different district, they had to apply for a special pass, or *boleta de domicilio*; and should they wish to ever leave the island, whether temporarily or permanently, they had to apply to the local authorities for a passport granting them permission to do so.²¹⁵

Detailed records were maintained by the Spanish colonial government in Cuba of the numbers of foreigners applying for their domicile letter, with the intention of

²⁰⁹ ‘Reglamento para facilitar el servicio de los buques paquetes de vapor ingleses a su entrada en los Puertos de la Habana, Santiago de Cuba y Matanzas...’, 18th October 1841 (PRO, FO 72/708, No.6); and *Instrucción Reglamentaria. Llegada y Circulación de Gentes*, 1849 (BNJM, Folleto c.293, no.6). Such controls on non-white immigrants intensified during the 1840s, following the uncovering of the *Escalera* conspiracy (Paquette, *Sugar is Made with Blood*; Curry-Machado, ‘Catlysts in the Crucible’; Stubbs, ‘Race, Gender, National Identity’).

²¹⁰ Real Cedula, 21st October 1817 (PRO, FO 72/888).

²¹¹ *Instrucción Reglamentaria* (1849).

²¹² Letter from James Forbes to Joseph T. Crawford, Santiago de Cuba, 14th September 1846 (PRO, FO 453/5).

²¹³ Letter from Forbes to Crawford, Santiago de Cuba, 14th July 1846 (PRO, FO 453/5).

²¹⁴ Letter from Crawford to Viscount Palmerston, Havana, 22nd January 1852 (PRO, FO 72/886).

²¹⁵ *Instrucción Reglamentaria* (1849).

settling – whether temporarily or permanently – in the island. These records, although incomplete, can provide us with a fairly intricate picture not only of immigrants as a whole, but of the *maquinistas* amongst them. It is immediately evident from the figures that migration into Cuba was above all working class (see Figure 5), with some 58% of the 1,758 applying for residency in the five years from 1847 to 1852 claiming working class occupations of one kind or another, although a significant number (28%) were either merchants or landowners. The importance of *maquinistas* is immediately apparent, with 22% of all migrants working in this trade.

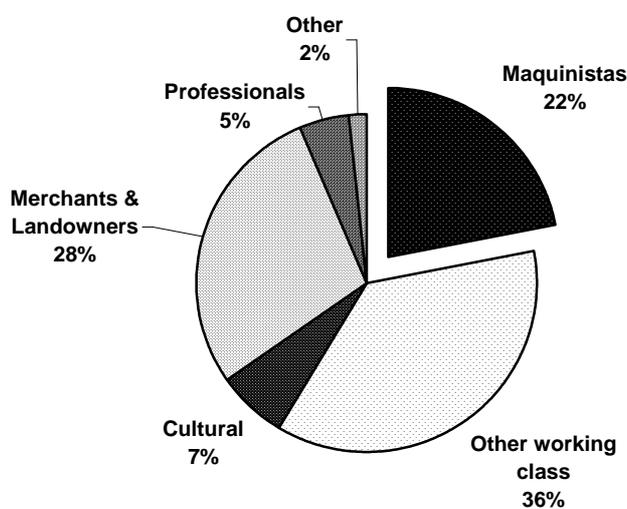


Figure 5 - Breakdown of all migrants settling in Cuba (1847-1852)

(Source: Based on data obtained from ANC, ML, 11080)

If the figures for working class migrants are looked at more closely, as in Figure 6, it can be seen that when *maquinistas* are joined with other skilled workers related directly to the industrial process (carpenters, iron workers, boiler makers and so on), they make up 71% of all workers settling in the island, and more than half of these were *maquinistas*.

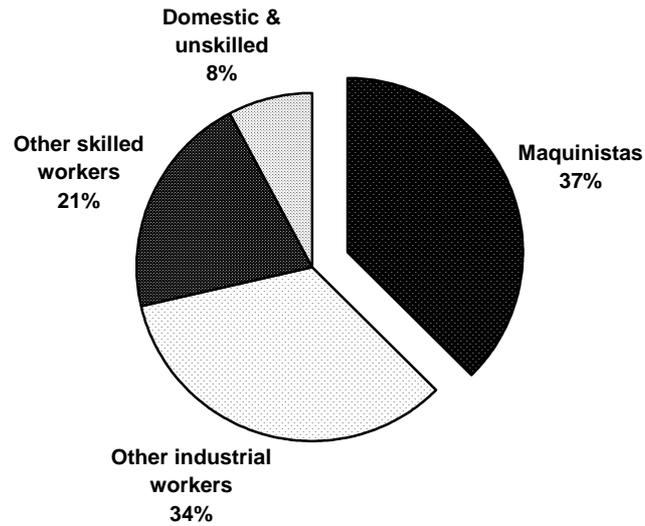


Figure 6 - Breakdown of working class migrants (1847-1852)

(Source: Based on data obtained from ANC, ML, 11080)

The migrants came from a wide variety of national backgrounds. However, 89% of the total came from just five countries: France, the United States, United Kingdom, Germany and Italy, in that order (See Figure 7).

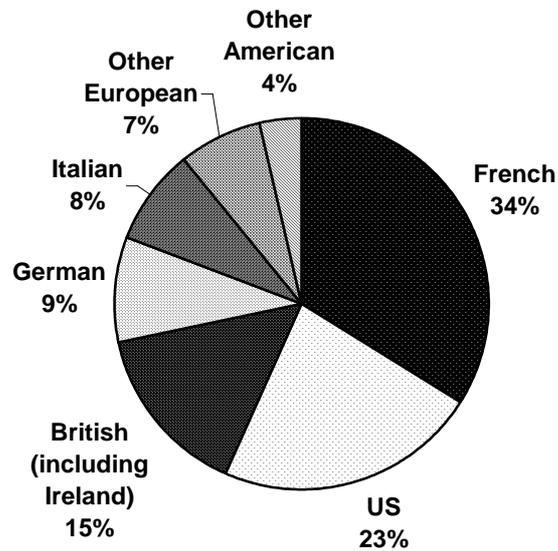


Figure 7 - Breakdown of national origins (1847-1852)

(Source: Based on data obtained from ANC, ML, 11080)

Figure 8 shows how the occupations of migrants varied considerably according to nationality. While the three largest national groups (French, North American and British) were more working class in make up than any other group, the French differed from the other two. Whereas around half of the British and North Americans were *maquinistas*,²¹⁶ this occupation was relatively unimportant amongst the French, amongst whom other skilled working class occupations were far more prevalent.

These results confirm what would be expected from the known origins of the machinery being imported into Cuba. During the mid-nineteenth century, 56% of *maquinistas* taking up residency in the island were from the United States; 30% were British (of which 61% were defined as ‘English’, 28% ‘Scottish’, 10% ‘Irish’),²¹⁷ 9% were French; and just 6% came from other countries.²¹⁸

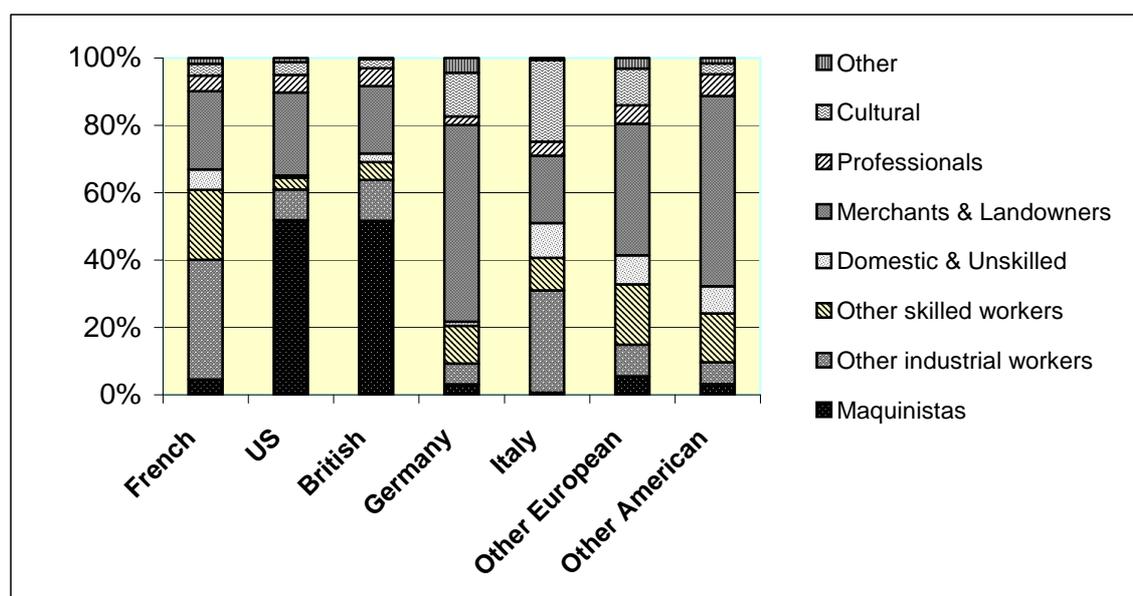


Figure 8 - Occupational distribution of migrants by nationality (1847-1852)
(Source: Based on data obtained from ANC, ML, 11080)

²¹⁶ Evidence presented by F. J. R. Henderson from domicile application letters (ANC, GSC, 27204 & 29023) confirms this. 57% of those he provides data for could be described as *maquinistas* ('Scots in Cuba', *The Scottish Genealogist*, 11:4 (November 1964), p.20; and 'Cuba: English and Irish Immigrants', *The Scottish Genealogist*, 17:2 (1970), pp.62-4).

²¹⁷ Such a breakdown of British migrants is problematic, given the tendency for the term 'English' to be used generically to include many who were actually Scottish, Welsh or Irish. Thus one migrant, Robert Henderson, "is described as born in England, when in actual fact he was born in Ireland of Scots parents" (Henderson, 'Scots in Cuba', p.20). It is probable, therefore that the actual figures for Scotland in particular, from where much of the machinery came from, were higher. That nevertheless 28% expressly described themselves as Scottish is perhaps an indication of the existence of an ethnic identity distinct to that of the British or English.

²¹⁸ ANC, ML 11080, 11397 and 11910.

Although the foreign *maquinistas* continued to arrive, and domicile themselves, in Cuba throughout the mid-nineteenth century, there were peak periods around the beginning of both the 1840s and 1850s (see Table 6). That there was a decrease in the numbers arriving during the mid-1840s and early-1850s may be partly attributed to the increased political paranoia in Cuba in those years – in the first instance as a result of the *Escalera* conspiracy, and in the latter because of the Narciso López invasions. Unfortunately data has not been located for the period from 1852 to 1865. However, by the mid-1860s considerably fewer *maquinistas* were applying for domicile in the island, possibly due to the extent to which Cuba had succeeded in training native *maquinistas*, but maybe more likely because of a relaxing in the rules governing the temporary residency of foreign workers.

Table 6 - Annual numbers of foreign *maquinistas* requesting domicile

(Source: Based on data obtained from ANC, ML, 11080, 11397, & 11910).

Year	Number of machinists
1843	88
1844	61
1845	43
1846	38
1847	38
1848	51
1849	66
1850	91
1851	67
1852	79
1865	23
1866	17
1867	5
1868	5

That the latter may be closer to the mark is supported by the breakdown of national origins of *maquinistas* applying for residency (Figure 9). Although this apparently shows that the proportion of North Americans amongst migrant *maquinistas* decreased considerably in this period, the fact that this coincided with the rise to dominance in the Cuban market of North American machinery, investment and human involvement would suggest that the official figures were no longer a reliable means of determining a complete picture of their presence in the island. It may be that

by this time Cuba had become somewhat glutted with foreign machinists, so leading to fewer arriving and settling for the first time. However, since other sources suggest that in the early 1850s around 400 North American *maquinistas* annually travelled to the island to work, and that this had risen to between 1,000 and 1,500 a year by the 1860s and 70s,²¹⁹ a possible explanation for the discrepancy is that most of these were purely seasonal workers, who made no attempt to formalise their residency in Cuba.

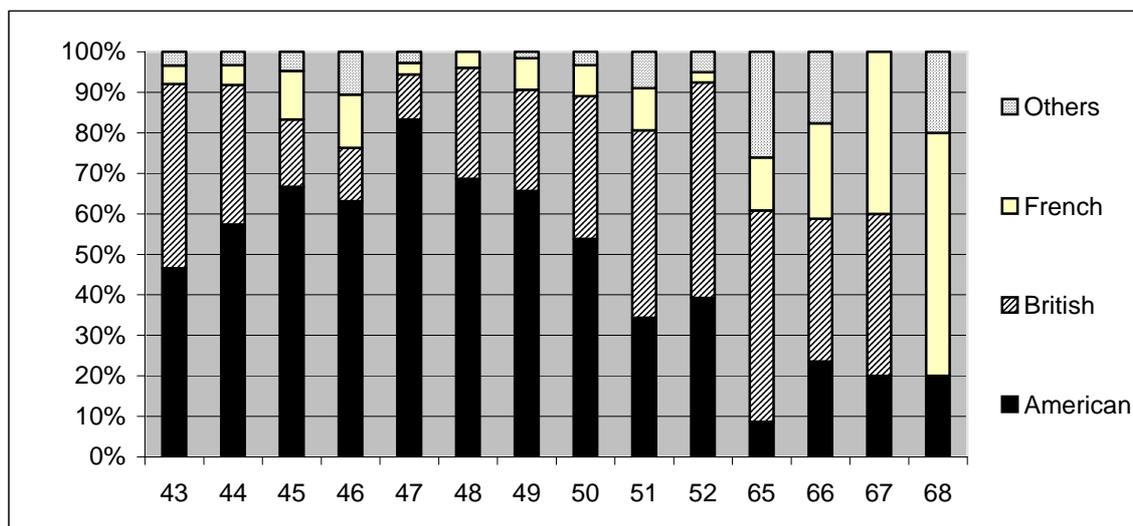


Figure 9 - Yearly national distribution of foreign *maquinistas* applying for domicile, 1843-68

(Source: Based on data obtained from ANC, ML, 11080, 11397, & 11910).

The average age of foreign migrants on arrival was about 31 years, though working class migrants were on average younger than others. With an average age of 30, the *maquinistas* had a tendency to be marginally older than most other workers – a reflection of the length of time it took to become fully skilled as a *maquinista*, in comparison to other trades.²²⁰ Nevertheless, Figure 10 shows that they had roughly the same age distribution as other working class migrants.

²¹⁹ Martínez-Fernández, *Torn Between Empires*, p.85.

²²⁰ ANC, ML, 11080, 11397 & 11910.

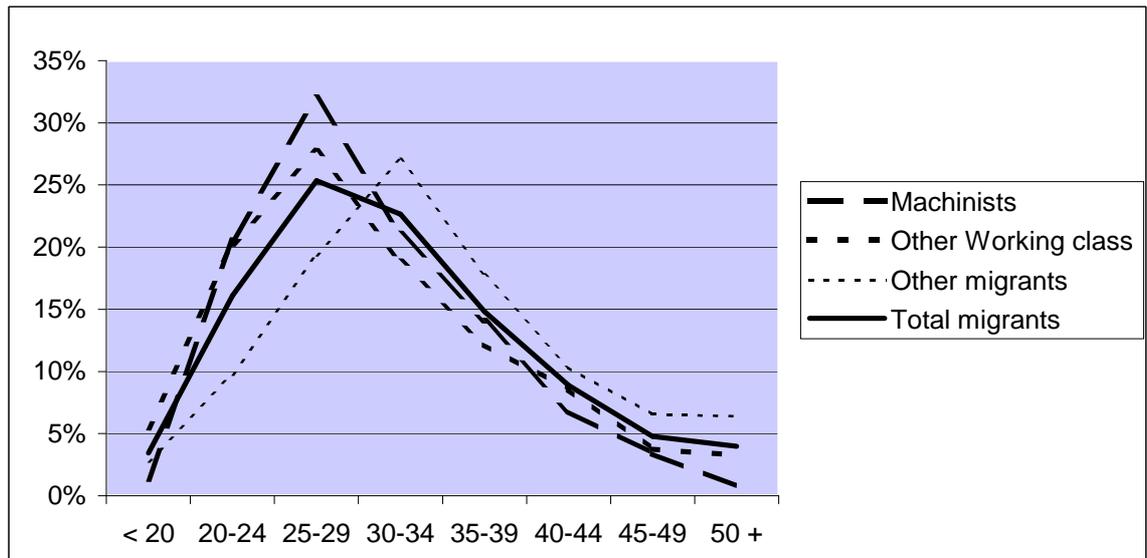


Figure 10 - Age distribution of migrants (by occupation), 1847-1852

(Source: Based on data obtained from ANC, ML, 11080).

It is interesting to note that, as Figure 11 shows, North American *maquinistas* tended to be younger than their European counterparts. This may have been due to many of them migrating the relatively short distance from the United States to Cuba in search of employment, rather than travelling with employment already arranged. As has already been shown, where active recruitment occurred it tended to favour the more experienced, and hence generally older, migrants. Those who travelled on spec, adventuring themselves in the hope of making their fortune, were more likely to be younger.

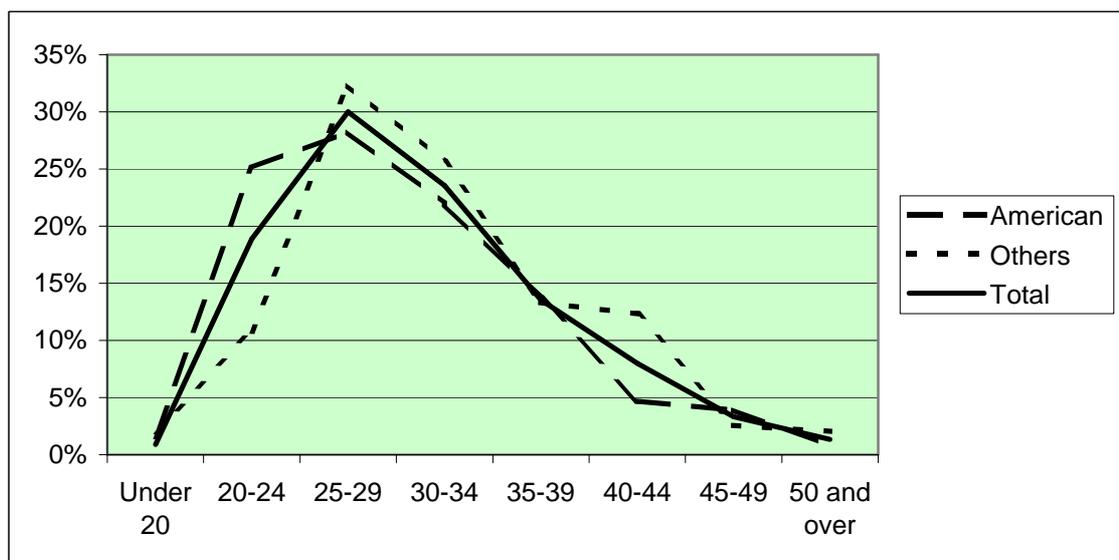
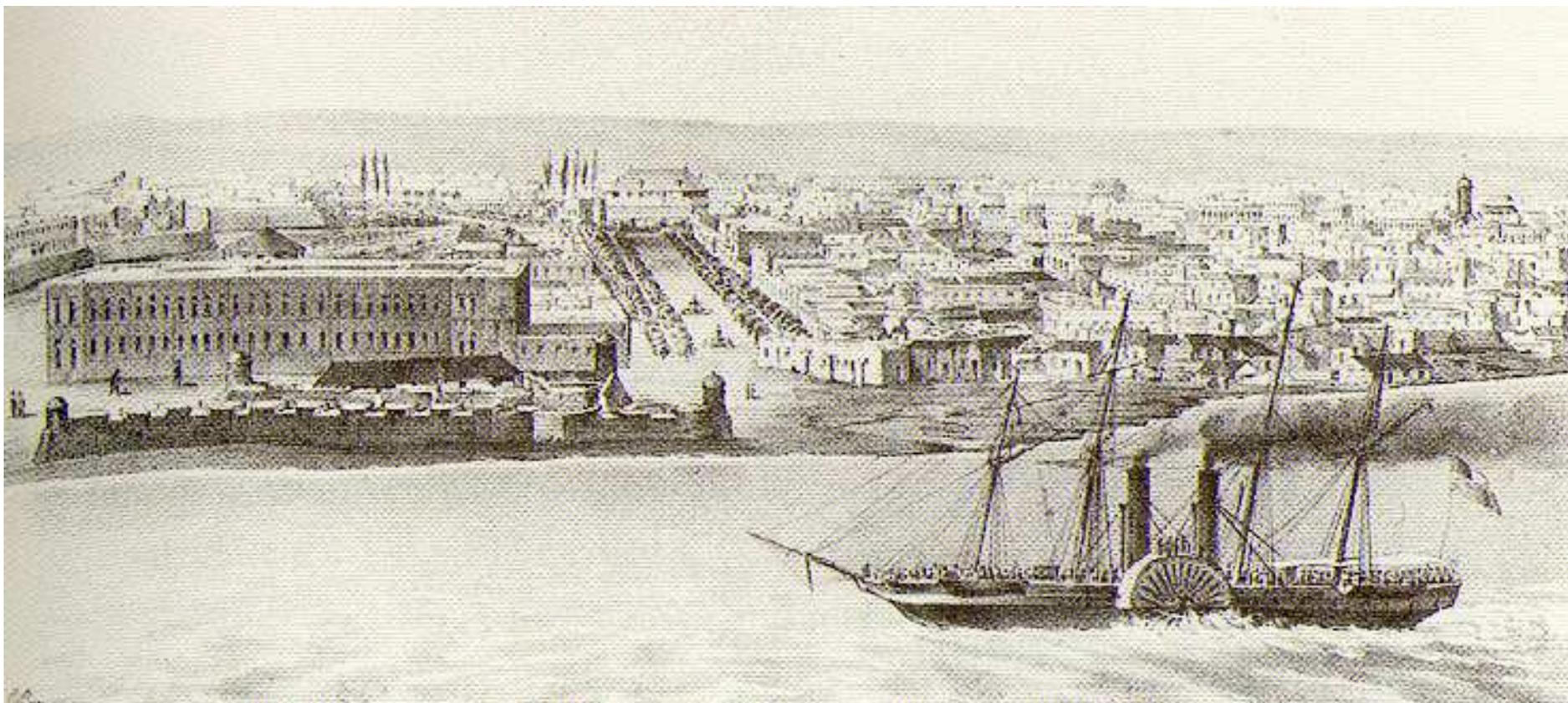


Figure 11 - Age distribution of migrant *maquinistas* (1843-1868)

(Source: Based on data obtained from ANC, ML, 11080, 11397, & 11910).

Conclusion

Unlike other migrant groups, the migration of the *maquinistas* was clearly defined by the terms of employment, with work being not just a necessity to be found upon arrival, but the very reason for that arrival in the first place. Thus had it not been for the introduction of machinery into Cuba, whether for the sugar mills, the railways or the mines, it is unlikely that many *maquinistas* would have arrived there. Even those who began to arrive without secure contracts did so not out of any special desire to live in that particular island, but because they knew that this was where lucrative employment could be obtained. Their journey to Cuba was not an isolated occurrence, but formed an integral part both of the commercial networks that opened up the possibility for their migration, and of the migratory networks that were facilitating the increase in long distance migrations. Likewise, their arrival in Cuba was not unforeseen, nor were they strange aliens, however their relationship with Cuban society might subsequently develop. Their presence had been actively sought out, by planters and merchants alike, and without them the new technology could not have been installed, let alone operated and maintained. Cuban society had emerged out of successive immigrations, and the *maquinistas* formed part of a small, but significant, non-Spanish white population.



VII - View of Havana, with steam packet ship (early 1850s)

(Source: Frederico Mialhe, *Album pintoresco de la Isla de Cuba*, Berlin, 1853, reproduced in Pérez, *Winds of Change*, p.51)

CHAPTER FOUR
SEASONAL MIGRATION, SOCIAL ADVANCEMENT
AND TECHNOLOGICAL DEVELOPMENT

Cuba would have been unexpectedly familiar to the *maquinistas*. Images of the West Indies had already become firmly engrained in popular perceptions, and were playing an important part in the development of domestic politics within the metropolitan nations.¹ Trans-Atlantic journeys were becoming a common place of European and American literature,² with the accounts made by Europeans and North Americans following visits to Latin America and the Caribbean becoming popular in the mid-nineteenth century. The descriptions made by such writers as Alexander von Humboldt, who famously travelled around South America and the Caribbean in the early nineteenth century, and the numerous travellers who followed his example effected a “reinvention of America” in the popular mind.³ Cuba was on the tour circuit for performers from Europe and the United States. In November 1839, for example, a British magician and ventriloquist, Mr Sutton, held a number of performances at the *Teatro del Diorama* in Havana, boasting of having performed before Queen Victoria at Buckingham Palace.⁴ Foreign residents in the audience could afterwards even enjoy a glass of their favourite beverage from back home: “large quantities of ale and beer are imported from Great Britain of which articles the consumption is enormous”;⁵ and one of the most important French imports was of fine wines.⁶

But the sights, sounds and society that the migrants found surrounding them in Cuba were very different from those they had left behind. James Herring was struck by his first sight of the island:

The many varieties of beautiful Palm trees, attracting most of my attention, they being so different from anything that I had ever seen before.⁷

¹ See, for example, Catherine Hall, *Civilising Subjects: Metropole and Colony in the English Imagination, 1830-1867*, Cambridge: Polity, 2002.

² See Malcolm Bradbury, *Dangerous Pilgrimages*, London: Penguin, 1996.

³ Pratt, *Imperial Eyes*, pp.111-71.

⁴ *Diario de la Habana*, 23rd November 1839.

⁵ Letter from Crawford to Russell, 7th January 1860 (PRO, FO 72/989, No.1).

⁶ Letter from British Consul at Santiago de Cuba to Aberdeen, 31st December 1841 (PRO, FO 453/4).

⁷ Herring, *Diary*.

An anonymous commentator reported to the British and Foreign Anti-Slavery Society that:

A person residing in England who has never visited the Spanish West Indies cannot ...conceive a clear or just idea of things in these countries, because words cannot convey to his mind the extent of their reality and variety.⁸

This chapter looks at where the *maquinistas* were heading upon their arrival in Cuba. But more importantly, it looks at the seasonal nature that their presence took. This will become particularly important later, as it is revealing of just how unbound these migrants felt by the island and its society. Though they may have found small familiarities to make their stay more comfortable, and were highly paid, even pampered, in comparison to other workers, the evidence here hints at a feeling of not really belonging shared by many of them. Cuba may have been tied into a mesh of transnational networks, which were what brought the *maquinistas* to the island in the first place, but nevertheless seems to have remained an alien place for many. Their marital status was an important consideration in this, and continued to tie many of them into kinship networks that lay outside Cuba. Despite this – or perhaps even because of this, since many of the *maquinistas* found little other than their work into which to channel their energies and time – many of these migrant workers found a possibility for advancement that they could only aspire to before their arrival. As was seen in the previous chapter, it was such ambition and anticipated opportunity that probably led to many of them emigrating in the first place, and in Cuba they were presented with the chance to move on from being simple installers and operators of machinery, to become agents for planters and engineering companies, owners of workshops, even inventors in their own right.

It is this last point that the chapter ends by exploring. The *maquinistas* did not merely accompany the new machinery; they themselves played an important part in its development. As David Jeremy has found, with the development of the North American textile and railway industries partly thanks to the direct contributions made by migrant artisans, so too in Cuba it can be seen that the *maquinistas* employed in the sugar mills made valuable contributions to the development of sugar technology.⁹

⁸ Unsigned report on slavery in Cuba (RH, BFASS, MSS Brit Emp s.18, G78).

⁹ Jeremy, *Transatlantic Industrial Revolution*; and *Artisans, Entrepreneurs and Machines*.

Without their direct experience, the metropolitan engineering companies could not have been responsive to specific local needs. Many of the improvements developed on the ground by the *maquinistas* themselves found their way into the international market. The chapter concludes by suggesting that, while the *maquinistas* arrived in Cuba travelling through the commercial and migratory networks, once there their activities led them to become the nucleus of another interrelated network, that of technology, tying Cuba even more firmly into the international arena.

Location and Movement of *Maquinistas*

The foreign *maquinistas* that arrived in Cuba were bound for a number of different employments, and the range of work open to them increased as the period progressed. With the growth of the sugar industry, and the spreading use of steam power, the need for them was growing. By 1860, at least 943 sugar mills were using steam,¹⁰ and each of these would have needed at least one *maquinista* to work the boiler, engine and machinery. This led to many of them being spread over the rural sugar districts of Havana, Matanzas, Cárdenas, Colón, Sagua la Grande, Trinidad and Cienfuegos. Likewise, every railway locomotive in the growing rail network required not only a *maquinista* to run, but also skilled maintenance support back in the workshop. Along with the development of foundries in the major cities, to service the plantations with the repair and construction of spare parts, this brought the concentration of some *maquinistas* in urban workshops. A small number were also needed for the mines, not just at El Cobre, but with the discovery of copper reserves near Holguín. These depended upon their steam engines, and hence their *maquinistas*, for pumping water, for hoisting out the ore, and as lifts for the workers.

Although many of the *maquinistas* arrived already contracted to work on a particular sugar plantation, railroad or mine, not all came with the security of a job. This probably became more so as time progressed and as news spread of the potential wealth a skilled worker could make in the island. As early as 1828, Daniel Warren¹¹

¹⁰ Rebello, *Estados relativos*, 1860.

¹¹ Warren arrived in Cuba as an Irish agricultural colonist in 1820 (ANC, ML 1210), but within a few years had become very influential in Havana. By the 1830s, he was a licensed shipping agent (ANC, GSC, 844/28348), and aggressively defended his monopoly on the re-embarkation of British and North American sailors from merchant ships (ANC, Escribanía de Guerra, 535/7073). He was also responsible for the construction of a number of buildings around the capital (ANC, Licencias para Fábricas, 4/665 & 23/6884; ANC, Realengos, 83/240). He frequently made loans to other foreign residents, many of whom he subsequently sued to enforce payment (ANC, Escribanía de Hacienda,

established a “deposit for foreign sailors and artisans” in Havana, providing an initial place for them to stay while looking for work.¹² By the mid-nineteenth century, this idea had been developed by others in the form of General Business Agencies that became privately established in a number of principal towns. For example, the agency that was set up in Sagua la Grande (the market town serving one of the principal sugar frontier districts) found placements for foreign workers, and helped them find places to stay.¹³

Seasonal migration

There was a tendency amongst the *maquinistas* towards treating their employment in Cuba as purely seasonal. Richard Dana, who visited Cuba in the 1850s, described how:

They leave home in the autumn, engage themselves for the sugar season, put the machinery in order, work it for the four or five months of its operation, clean and put it in order for lying by.¹⁴

Many would then leave not just the plantations on which they had been working, but the island itself. This became increasingly easy to do, as steamboat services between Cuba and the United States improved. By the second half of the century it was quite a straightforward, and quick, journey to be made: and not just the North Americans did so, but also Europeans, for whom a journey ‘home’ would have been far more complicated. Samuel Hazard, writing about his visit to the island in the early 1870s, observed “most of the engineers going over to the States to pass the summer, or, as they express it, ‘to have a good time’”.¹⁵

Every year, between October and December, there was a considerable rise in the numbers of migrants arriving. This might be seen to confirm the health considerations already referred to, with migrants waiting until after the unhealthy summer months to arrive in the island. However, as Figure 12 shows, this increase was almost entirely due to the numbers of *maquinistas* arriving at the end of the year. Other migrants travelled to Cuba at a fairly constant rate, regardless of the month, whereas almost

76/1295; Escribanía de Varios, 739/12425; Escribanía de Junco, 153/2318). He died in Havana around 1866 (ANC, Escribanía de Cabello Ozengera, 426/7).

¹² ANC, RCJF, 201/8929).

¹³ *Hoja Económica de Sagua la Grande*, 26th September 1861.

¹⁴ Richard Dana, *To Cuba and Back: A Vacation Voyage*, Boston: Ticknor & Fields, 1859, p.60.

¹⁵ Samuel Hazard, *Cuba with Pen and Pencil*, Hartford, 1871 (quoted in Louis A. Pérez (ed.), *Slaves, Sugar and Colonial Society: Travel Accounts of Cuba, 1801-99*, Wilmington: Scholarly Resources, 1993, p.75).

three quarters of the *maquinistas* arrived in the final four months.¹⁶ This was due to their migration being closely tied to the demands of the sugar harvest, which would begin around December or January. Whereas other migrants could expect to find employment at any time of the year, the *maquinistas* came when most planters were looking around for machine operatives to run their mills during the grinding season. Those who arrived in this way were more likely to be temporary migrants, just travelling over for the well-paid Cuban sugar harvest before returning to their homes, or moving on to employment elsewhere. Because the law stated that anyone intending to remain for longer than three months had to become domiciled, this meant that *maquinistas* who actually had no intention of remaining in the island would take out residency papers, to enable them to remain for the duration of grinding (roughly December until May or June).¹⁷

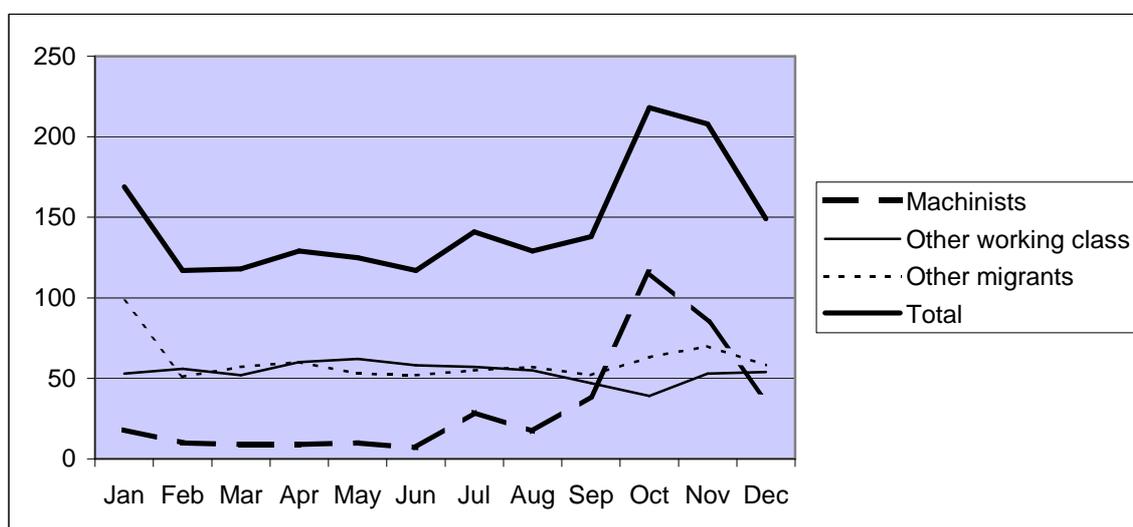


Figure 12 - Monthly residency applications by migrants (1847-1852)

(Source: Based on data obtained from ANC, ML, 11080)

Figure 13 shows that while there was a preference amongst all *maquinistas*, regardless of nationality, to arrive between October and December, this was far more

¹⁶ ANC, ML 11080, 11397 and 11910. From the data available, 72% of *maquinistas* applied for domicile between September and December. This is further supported by evidence provided by Henderson ('Scots in Cuba' & 'English and Irish Immigrants') from domicile applications mainly from 1854 to 1858, with 70% of English, Scottish and Irish *maquinistas* arriving between October and January. The slight difference in months between the two sets of data is possibly a reflection of differences in arrival between the British and North Americans (data for which Henderson ignores).

¹⁷ Although, as has been suggested, application of this rule seems to have become increasingly lax in its application to those *maquinistas* who travelled annually for around six months employment, but who were, by the 1860s, no longer bothering to apply for a *carta de domicilio*.

pronounced amongst North Americans than the rest. This is possibly due to the relative ease of travel faced by the former, who could time their migration more closely to the demand for their labour; whereas the Europeans would need to take into account not just the journey time, but also the climatic conditions. Thus the increase in migration to be observed amongst non-American migrants through the summer, despite the health risks connected to arrival around this time, followed by a decrease in September and October, was possibly due to the risk of hurricanes in the region in this latter period, and the increased danger to ocean shipping. It might also have had something to do with a difference in the nature of European and North American *maquinista* migration, with many migrating from the United States attracted by the lucrative Cuban labour market, while many from Europe came with pre-established contracts, which if connected with the installation of new machinery would have required their presence several months before the start of the grinding season, to ensure plenty of time to install and test the machinery properly before the new season started.

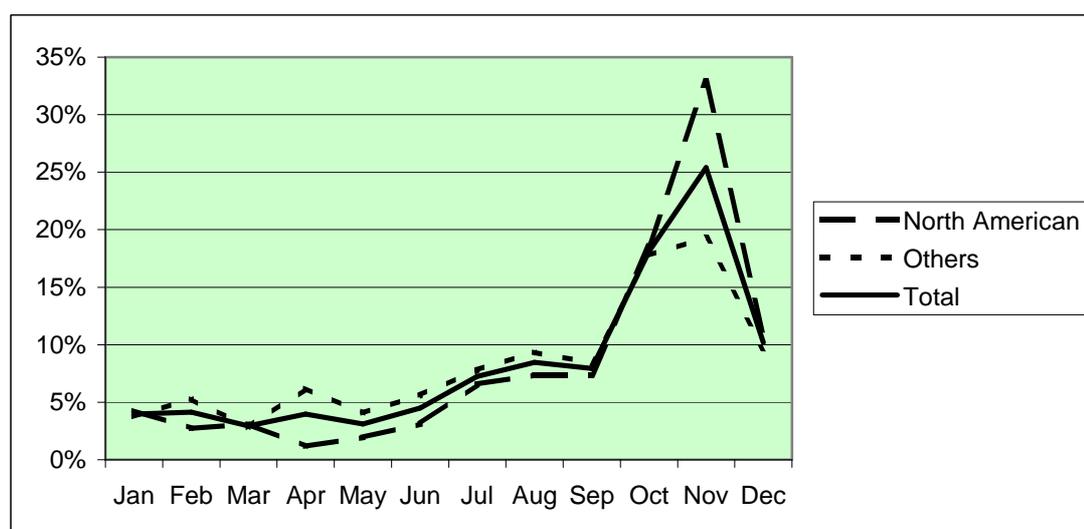


Figure 13 - Annual *maquinista* arrivals (1843-1868)

(Source: Based on data obtained from ANC, ML, 11080, 11397, & 11910).

In 1851, the Government in Cuba ordered all provinces and districts to provide a detailed account of the presence and movement of foreign *maquinistas* in their jurisdiction.¹⁸ Thanks to the reports made, it is possible to obtain a snapshot view of their presence in the island, and their movements in the course of the year.

¹⁸ ANC, GSC, 1285/50227.

Unfortunately, many districts only provided reports as an immediate response to the order, which, since this came in August, coincided with the absence of most of the *maquinistas*. This in itself is revealing. The district of Güines (South of Havana) was an important sugar-producing zone, containing many long established plantations that provided the stimulus for the development of the first Cuban railway. However, in August 1851 there were only two foreign *maquinistas* counted. A third had left in July, following the conclusion of the grinding season; and it was said that many others had been working there, but had left for the summer.¹⁹ In Oriente, the vast majority of foreign *maquinistas* accounted for had left Cuba, mainly for the United States, and although still reckoned as working on their respective plantations, all but four were still absent in November.²⁰

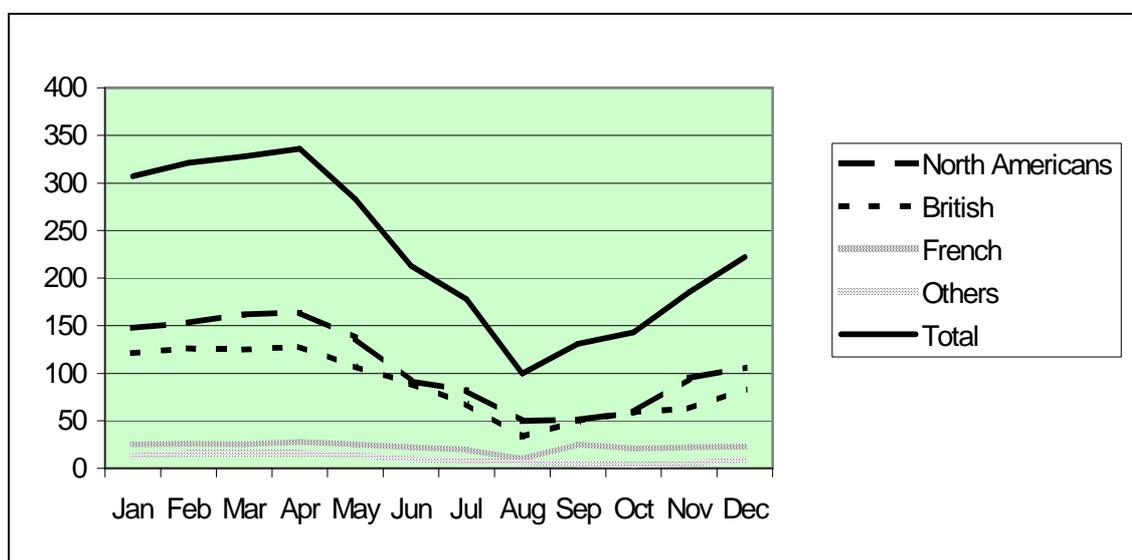


Figure 14 - Number of *maquinistas* present by month (1851-55)

(Source: Based on data obtained from ANC, GSC, 1285/50226-50245; and AHPM, GPI, 6/87-102)

A more detailed view of movement during the year can be obtained from the considerably more conscientious reports sent from those districts that had the highest concentration of foreign *maquinistas*: Matanzas and Cárdenas above all, though to a lesser extent also Cienfuegos and Sagua la Grande. Figures 14 and 15 show the extent to which the presence was seasonal. As many as 70% of the total absented themselves from their places of residency in Cuba during the summer, and their numbers only returned to anything like full strength in January of the following year.

¹⁹ ANC, GSC, 1285/50231.

²⁰ ANC, GSC 1285/50230.

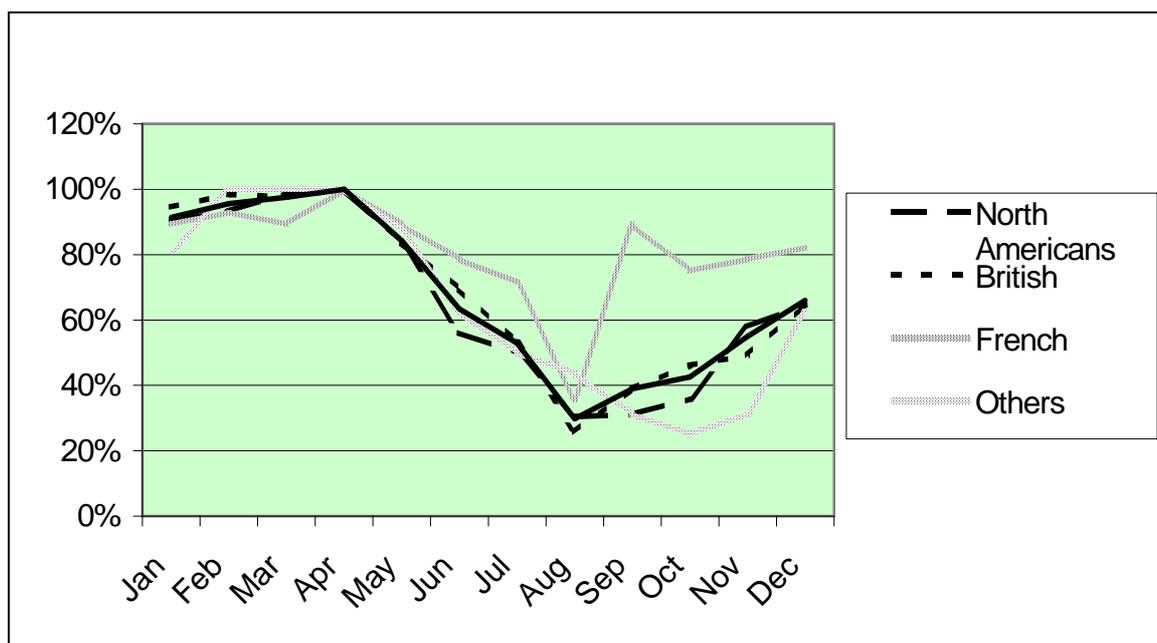


Figure 15 - Percentage of foreign *maquinistas* present by month (1851-55)

(Source: ANC, GSC, 1285/50226-50245; AHPM, GPI, 6/87-102)

The tendency to remain in movement was not limited to seasonal trips to the United States or Europe. Within Cuba itself, the foreign *maquinistas* displayed a lack of rootedness. They were in such high demand, that they could afford to pick and choose their employers – seeking out the best terms and conditions, or simply shifting between jobs as they felt the need. When Storey, Spalding & Co wanted to employ their favourite *maquinista*, Caird, for the setting of a new engine on the ‘Arroyo’ plantation, he was in a position to decline, “as his engagements were very pressing”.²¹ The Scottish *maquinista*, Daniel McIntosh, worked on a sugar estate near Gibacoa, before taking up a job on the railways.²² In the early 1850s, he was still working in Cuba – again on sugar plantations (in the Corral Nuevo district of Matanzas). He had clearly also been regularly travelling to the United States, since by 1855 he was able to change his nationality, by then preferring to consider himself North American.²³ Even though William Knight had been dismissed from the Havana-Güines railway for causing a fatal accident, this did not mean that he was unable to continue finding

²¹ Letter from Storey, Spalding & Co to Baring Brothers & Co, Havana, 14th November 1851 (BA, HC 4.6.10, no.65).

²² ANC, CM 51/1, pp.117-120.

²³ AHPM, Gobierno Provincial (Ingenios) (GPI), 6/87-102.

lucrative employment in Cuba.²⁴ He continued to reappear from time to time in the island, over the next twenty years, in various capacities. In the 1840s, he was *maquinista* in the coalmines near Havana, which were being exploited with British capital to help provide fuel for the steam packet services.²⁵ In the 1860s, he was still able to capitalise on his identity as a foreign *maquinista*, and was appointed agent for the Havana & Marianao Railway Company, for whom he attempted to secure British investment – though in the process he demonstrated his continuing ability to attract scandal.²⁶

Despite the tendency for the foreign *maquinistas* not to lay down lasting roots in Cuba, a number of them did remain working in the island for a long period of time. Only *maquinistas* working on the sugar plantations could take advantage of their work being seasonal to return regularly to the United States or Europe. Even amongst these, while the majority left during the summer, some 30% remained on the plantations themselves. Daniel Downing, who began working in Cuba in the early 1840s, was still around in the early 1850s, and between 1851 and 1855 appears never to have absented himself from the plantation where he worked (the 'Paz de Morla', in the Guamacaro district of Matanzas).²⁷

As Figure 16 shows, the likelihood that a foreign *maquinista* would remain on a plantation for longer than just the grinding season was not a purely personal choice, but was in great part determined by the district in which that plantation was located. While the *maquinistas* working in Corral Nuevo and Santa Ana quickly left in the summer, leaving very few, if any, of their number behind; in Guamacaro, and to a lesser extent Sabanilla, the majority opted to remain.

²⁴ AHN, UCF, 33/2.

²⁵ Letter from Turnbull to Palmerston, Havana, 18th March 1841 (PRO, FO 72/584, no.31).

²⁶ Letter from Joseph T Crawford to Earl Russell, Havana, 23rd May 1862 (PRO, FO 72/1041, No.22). Knight was accused of tampering with the terms for the loan that the railway company was prepared to accept, with the suggestion that he thereby increased his own profits. As a result he was severed from their employ.

²⁷ AHPM, GPI, 6/87-102.

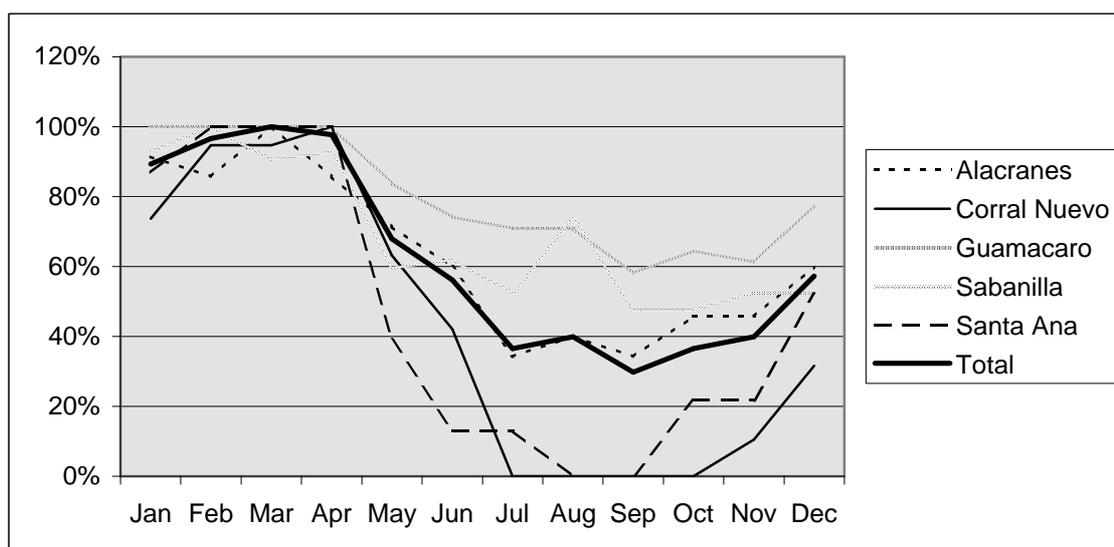


Figure 16 - Percentage of *maquinistas* present in principal sugar districts (Matanzas) by month (1851-55)

(Source: Based on data obtained from AHPM, GPI, 6/87-102)

It may be that in such districts, conditions were sufficiently good to make remaining there an attractive proposition. Guamacaro seems to have been a particularly good place to be:

The plane of this district is situated at an elevation of around three hundred feet above sea level, and is surrounded by hills and mountains, ...and woods; ...free from the damaging influence of marshes, swamps and stagnant waters, ... The air is free, alive and pure, and at night and in the morning fresh, compared with the rest of the day. Its inhabitants enjoy generally good health, and many reach an advanced age. Endemic diseases are here unknown.²⁸

The district was renowned for its spring waters, and with its wide variety of flora and fauna this may well have appeared as close to paradise as many of these European and North American industrial workers could have expected to get.²⁹ However, for all its beauty and attractive conditions, Guamacaro also demonstrated some of the worst demographic distortions of mid-nineteenth century Cuba, thanks largely to the dominance of sugar cane there. The population was overwhelmingly made up of enslaved blacks (some 83% of the total), and was almost as overwhelmingly male (62% of the total, 67% of the whites, and 83% of the foreign whites). The *maquinistas*, spread over 32 sugar plantations, formed part of a group of foreign whites (75 in 1845, in a

²⁸ *El Faro Industrial de La Habana*, 6th April 1845.

²⁹ *El Faro Industrial de La Habana*, 4th April 1845.

total population of 8,435, and a white population of 1,162)³⁰ that was too small and spread out for there to have existed much in the way of a migrant community.

Marital status

Marital status is important for understanding the tendency towards seasonal migration in many *maquinistas*, and why some may have decided to remain. Geoffrey Crossick, writing on London's artisan elite, has shown that sons tended to assume the trade of their fathers, with this being reinforced by skilled workers tending to marry within their social group.³¹ Some studies suggest that this was maintained with migration. John Belshaw discovered that amongst the British coal miners on Vancouver Island in Canada, family rather than class defined the interests of individuals, and hence of groups. Not only was this at the heart of continued migration to the area, but it also augmented the development of racial and ethnic divisions with other miners, and hence affected the development of class organisation.³²

The foreign mining companies operating in Cuba came to realise very quickly the advantages of employing migrant workers who were not only married, but were accompanied by their wives and children. Because they were steadier workers, it was even considered worthwhile paying them extra to attract them into employment.³³ The agent of one of these companies recommended a change in the initial policy of just employing young, unmarried men (who were cheaper, and, it was thought, less likely to object to the conditions facing them in the Cuban copper mines):

I find that the restrictions on age and unmarried are great impediments to my obtaining suitable men; in some cases I think it will be desirable to engage married men particularly as ore dressers and smiths.³⁴

There are some parallels to be seen amongst the *maquinistas*. The evidence suggests that they were rather more likely than other migrants to be married (33% compared with 27%), and the difference was considerably more pronounced between

³⁰ *El Faro Industrial de La Habana*, 6th April 1845.

³¹ Crossick, *Artisan Elite*, pp.114-9.

³² Belshaw, *British Coalminers*, p.381.

³³ Letter from Hamilton Jenkins to William Leckie, London, 20th August 1839 (RIC, HJ/1/18).

³⁴ Letter from Jenkins to William Leckie, 13th February, 1838 (RIC, HJ/1/17).

them and other migrant workers, of whom more than 80% were single.³⁵ Amongst the *maquinistas*, rather more of the British and North Americans (35% and 36% respectively) were married than among the remaining nationalities. As would be expected, the older the *maquinista*, the more likely it was that he would have a wife and family (see Figure 17), and there appears to have been little difference in this respect between them and other migrant groups in Cuba. This was to be expected, since theirs was an occupation in which status and respectability was of great importance not just to them, but also to those who employed them.

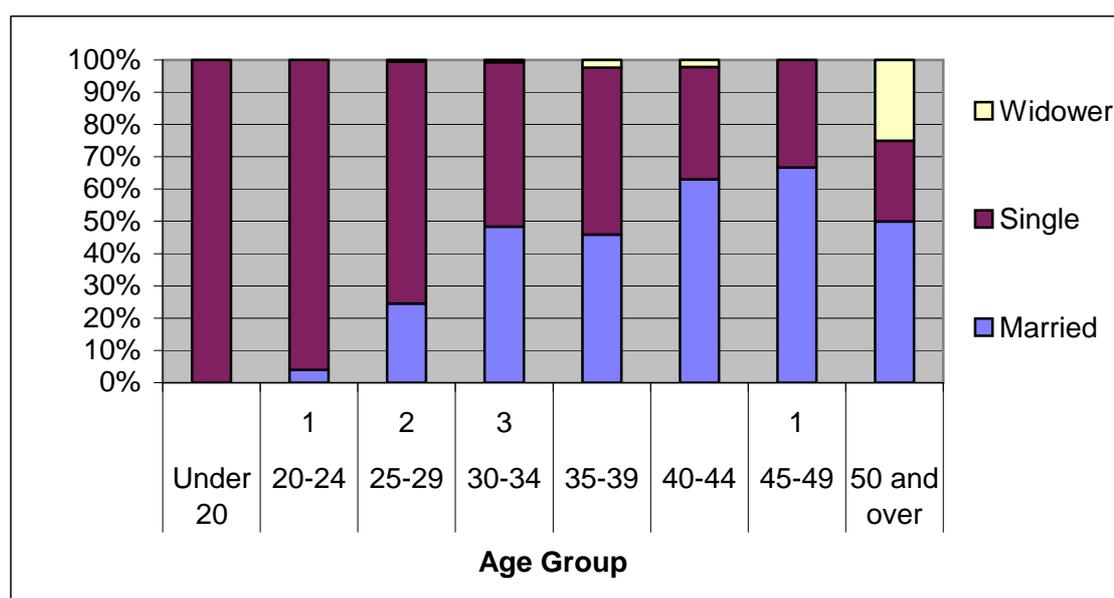


Figure 17 - Age and marital status of migrant *maquinistas* (1843-1868)

(Source: Based on data obtained from ANC, ML, 11080, 11397, & 11910)

A number of *maquinistas* either travelled to Cuba with their wives, or brought them out to join them once settled. Luis Peltier, the French *maquinista* on the 'Angelita' estate, was married to Teodora Montardy (also apparently French), with whom he lived on the plantation along with their three children.³⁶ Henry Elkins likewise lived on the 'Nuestra Señora de la Paz' estate with his wife (an English woman, to whom he was married prior to migrating) and son, who was born in 1839, the same year that

³⁵ ANC, ML, 11080, 11397 and 11910. Evidence from Henderson ('Scots in Cuba' and 'English and Irish Immigrants'), based on domicile application letters mainly 1854 to 1858, shows an even larger difference (43% of English, Scottish and Irish *maquinistas* were married, as against 33% of all migrants of those nationalities).

³⁶ ANC, ML 10789.

they arrived together in the island.³⁷ Samuel Evans invited his wife to join him from Britain once he felt himself to be “very comfortably established”.³⁸ William Bisby, despite having travelled to Cuba without the security of a pre-arranged job, was accompanied by his family.³⁹

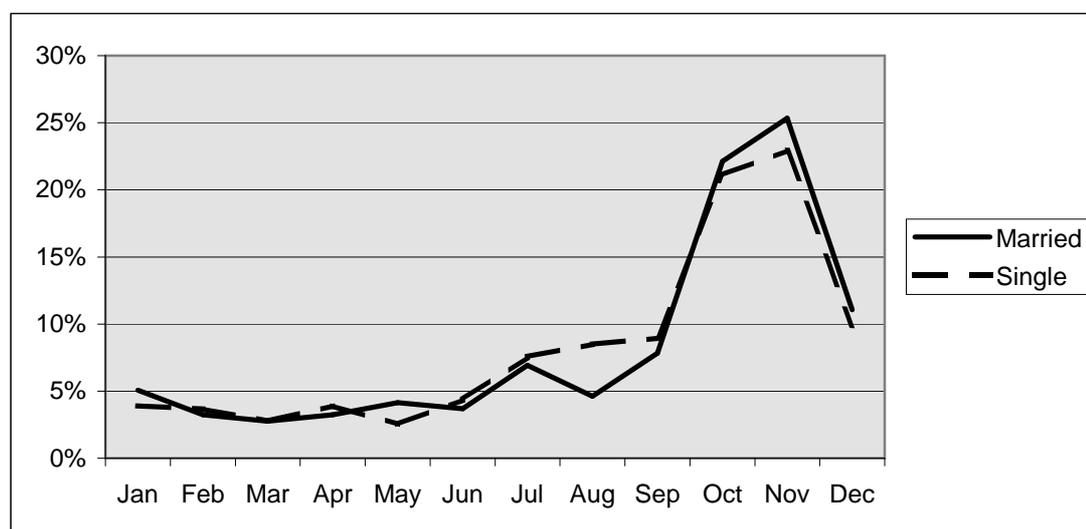


Figure 18 - Arrival of migrant *maquinistas* in Cuba by month and marital status (1843-1868)

(Source: Based on data obtained from ANC, ML, 11080, 11397, & 11910).

Those *maquinistas* who were married seem to have been marginally more likely to travel around November than those who were single – although arrivals of both peaked in this month (see Figure 18 - Arrival of migrant *maquinistas* in Cuba by month and marital status (1843-1868)). This was possibly the result of those travelling with their spouses waiting for the combination of the relatively safer weather for the sea voyage, and healthier conditions on arrival; while those who, although married, were travelling alone were more likely to wait until shortly before the start of the grinding season before leaving their families.

There was a tendency for many *maquinistas* to leave their wives and families safely housed in the more comfortable and healthy climes of the North. Their salaries were sufficiently high to enable them to divide their year roughly between six months working in Cuba, and six months back with their families, enjoying their newfound

³⁷ Letter from Henry Elkins to President of Comisión Militar, Matanzas, 15th July 1844 (ANC, CM 51/1, pp.393-400).

³⁸ Letter from Crawford to Malmesbury, Havana, 1st July 1858 (PRO, FO 72/944, No.36).

³⁹ Letter from Charles N Tilley to William Bisby, Newport, 18th September 1843 (ANC, CM 51/1, p.416).

wealth. While this weakened the chances of their establishing a long-term identity within Cuba as anything other than outsiders, the difficulties that they encountered in overcoming their isolation made it considerably less likely that they would be prepared to uproot their families in order to start an entirely new life in the island. Robert Bell used to leave the sugar mill where he worked only after the grinding season in order to travel to New York to see his wife, son and daughter, “to whom alone he dedicates his attention, and therefore has concentrated his actions on the sacred objective of maintaining them”.⁴⁰ Bell, although British, was fortunate in having his family, although not with him, at least relatively close. Joseph Keating, one of the first British *maquinistas* working on the Havana-Güines railroad, denied that he had been dismissed due to drunkenness, asserting that he had asked to be released since his pay was not sufficient to send funds back to his wife in Britain.⁴¹ Similarly Samuel Hewitt felt the need to return to Britain in 1844, when he fell ill, in order to be with (and be looked after by) his family.⁴²

It has been found that British émigrés to South and Central America in the nineteenth century (many of whom were skilled workers such as the *maquinistas*) were more likely to be married than those bound for other destinations. In fact, a clear majority of them were.⁴³ Nevertheless the majority of those applying for residency in Cuba were single. Between 1847 and 1852, of the 373 foreign *maquinistas* recorded as seeking domicile, only 133 were married.⁴⁴ In addition, many of those who were married arrived as though they were single, leaving their families behind. Some did so permanently, as did William Whitehorn, whose wife Eliza found herself forced to plead with the British government to try to track him down, since having left he had sent her neither word nor money.⁴⁵ Others did not abandon their family responsibilities entirely, either sending back remittances, or occasionally travelling to visit the wives and children they had left behind: as did Donald McIntosh, who once he had settled in Cuba travelled to the United States where his family was living.

⁴⁰ ANC, CM 51/1, p.448.

⁴¹ AHM, UCF, 33/7.

⁴² ANC, CM 51/1, pp.331-332.

⁴³ Pooley & Turnbull, *Migration and Mobility*, p.280.

⁴⁴ ANC, ML, 11080.

⁴⁵ Letter from Wodehouse to Crawford, 16th April 1853 (PRO, FO 72/830, No.6); and Letter from Crawford to Clarendon, 23rd June 1853 (PRO, FO 72/830, No.24).

Though he originally intended to bring them back with him, they remained where they were, while he continued to live and work for many years in Cuba.⁴⁶

The terms of employment⁴⁷

The *maquinistas* who arrived in Cuba had been attracted by the prospect of advancement, and this was sufficient for many to tear themselves away from their families, and endure quite difficult conditions. Although not all were able to take full advantage of the opportunities offered by the island, for many the rewards were substantial, and for some the experience was one from which fortunes could be made.

Working conditions

Mid-nineteenth century Cuban sugar mills were often so spectacularly designed that they have been described as “deserving to be called palaces”. The plantation itself, particularly in the case of the larger ones, was more like “a small town, with broad jurisdictional limits, than a country estate”.⁴⁸ They were self-contained communities. The ‘Santa Sofía’ plantation was described by a North American visitor as being:

a little village within itself, containing church, dwellings, hospital, workshops, storehouses, water works and whatever is necessary to its daily economy.⁴⁹

Hence although nominally situated in rural districts, and with many miles between them and the nearest town, the sugar mill *maquinistas* found themselves in a working environment that had many points in common with that to which they had been used in the urban workshops of North America and Europe. For all that the landscape that surrounded the plantation was so different, the mills themselves were literally factories, and became more so as the technology developed. However idyllic the countryside may have appeared, during the day the heat of the furnaces combined with the surrounding tropical conditions would have made the mill itself close to being an earthly hell. Elsewhere in the factory, as work progressed deep into the night, the poorly clad slaves found the only warmth to be got was from the torches lit to

⁴⁶ Interrogation of Donald McIntosh, Matanzas, 2nd September 1844 (ANC, CM 51/1, pp.547-550).

⁴⁷ Advice on the technological and practical aspects of this and the following section was provided by David Curry.

⁴⁸ José García de Arboleya, *Manual de la Isla de Cuba*, Havana: Imprenta del Gobierno, 1859. See Cantero, *Los ingenios*, 1857, for views of mid-nineteenth century sugar mills, inside, out and with their rural backdrop.

⁴⁹ W. M.L. Jay, *My Winter in Cuba*, New York, 1871, in Pérez, *Slaves, Sugar, Colonial Society*, p.70

illuminate their labours.⁵⁰ It was also a very noisy place, with the shouts of the enslaved workers and their overseers competing with the crackling of the waste cane used as fuel, the hissing of the steam so produced, and the crushing of the cane passed between the giant cylinders that squeezed the juice from them.

Life on a sugar plantation was regulated by the chimes of a bell, struck at predetermined times in the day.⁵¹ Though these were principally intended to regiment the day of the slaves, the *maquinistas* cannot have failed to have been affected by this order. It was common for their working day to begin around 5 or 6 a.m.,⁵² and to continue until the evening, unless shortage of cane or a breakage brought the grinding to a premature halt. During the grinding season, they were expected to be beside their machines, ensuring that no breakdown occurred, as one *maquinista*, Henry Elkins, testified:

I was constantly at work from morning until night, nor have I been off the estate more than three times during the last three months, and upwards of one year I have not been in the Village of Cárdenas.⁵³

Theirs was a position of great responsibility, upon which the fortunes of the estate depended. They had to keep not only the principal steam engine in operation, but also a growing amount of other machinery. For example, an inventory for the 'Angelita' plantation in the 1870s showed it to be equipped with a cane mill, five Jamaica sugar trains, four vacuum pans and twelve centrifuges and a still. As an operational sugar factory, this will have needed various steam engines, pumps and condensers, together with equipment for controlling the steam, not to mention the furnace and boiler. That there were also various other engines and machines in different states of disrepair indicates that the factory had at some stage been extensively re-equipped.⁵⁴ In 1857, Justo Cantero (a sugar planter from Trinidad de Cuba) published a collection of pictorial representations of many of the leading sugar mills of the day, together with detailed descriptions. These show the extent to which such estates were fitted out with

⁵⁰ Evocative descriptions of the conditions inside a sugar mill are provided by Cirilo Villaverde, in his novel of the period *Cecilia Valdés* (Havana: Editorial Letras Cubanas, 2001 [1839-82], pp.328-9, 368-70).

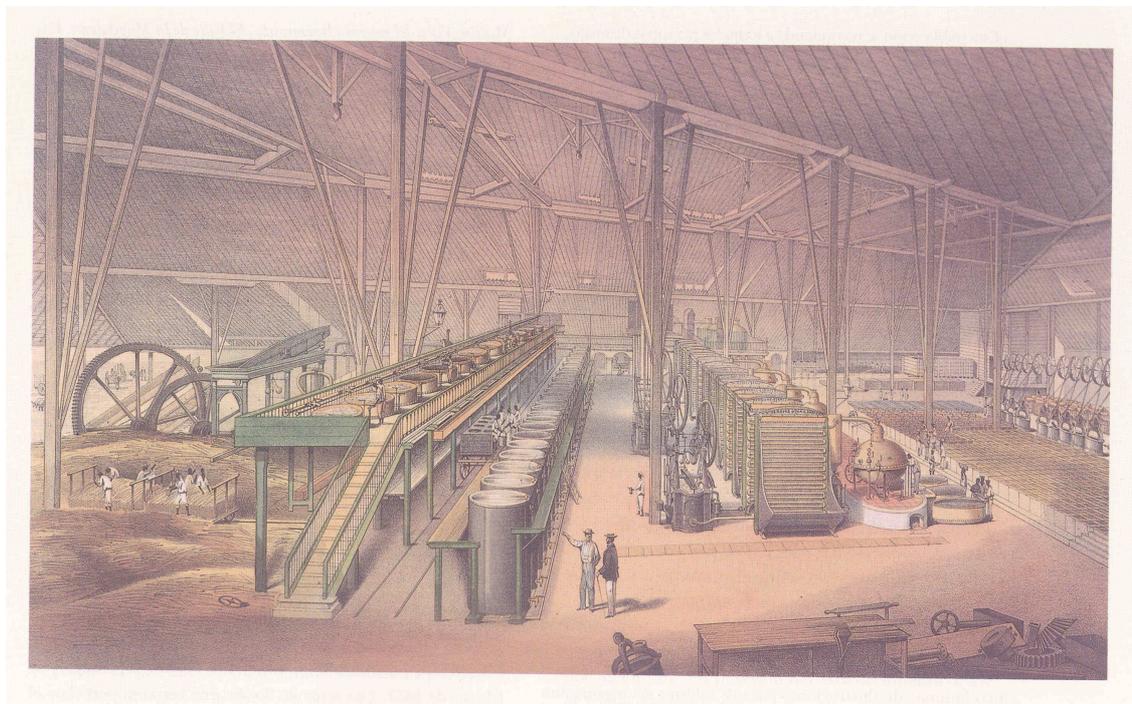
⁵¹ Miguel Barnet, *Biografía de un cimarrón*, Havana: Editorial Letras Cubanas, 2001 [1966], p.22; Moreno Fraguas, *Sugarmill*, pp.148-9.

⁵² ANC, Donativos y Remisiones (DR), Fuera de Caja 140, No.2; La Palma Estate Book 3 (BL, HEE, MSS Span c.4).

⁵³ Letter from Henry Elkins to Joseph T Crawford, Havana, 12th December 1844 (PRO, FO 72/664, No.52).

⁵⁴ ANC, ML, 10789.

the latest equipment, none of which could possibly have been kept running without the services of someone with considerable experience and practical engineering expertise.⁵⁵



VIII - Casa de Calderas, Alava Sugar Mill

(Source: Cantero, *Los ingenios*, 1857)

So long as the machinery was running smoothly, the *maquinista's* job was a relatively relaxed one, particularly in comparison with the overworking of the slaves. When Julia Woodruff visited the 'Santa Sofía', she noticed how the *maquinista* was seated in a cage-like compartment, reached by a ladder, in which, although he had a view by which he could keep an eye on all that was happening with the engine and other machines, he was nevertheless removed from the bustle of the factory floor. In fact, when the visitor saw him he was sitting crossed legged reading with much attention an old newspaper, apparently oblivious to the shouts and noises that surrounded him.⁵⁶ Thus even during the grinding season, when they supposedly had little free time because their full attention was required for keeping the machinery running (and even more so during the other six months of the year when there was relatively little work to be done at the mill, beyond routine maintenance), the *maquinistas* had much opportunity to turn their attention to more than merely keeping

⁵⁵ Cantero, *Los ingenios*, 1857.

⁵⁶ Jay, *Winter in Cuba*, 1871, pp.219-20, in Marrero, *Cuba*, Vol.X, p.195.

existing engines in operation. Many found it possible to turn their hand to making alterations to the machinery, and even inventing.

What above all made such employment attractive were the high wage levels they commanded. On the 'Angelita', the *maquinista* was paid \$153 a month, considerably higher than the \$60 and \$40 paid to the carpenter and mason respectively. Even the overseer of the slaves (*mayoral*) took a mere \$68. Only the administrator, with \$340, was better off.⁵⁷ A similar pattern can be seen in all sugar estates. But it was not only their salary that they could expect to receive. Contract work, which they would often carry out alongside their other functions, was also especially lucrative. Daniel Downing was receiving \$136 a month in 1844, when he was arrested for involvement in the *Escalera* conspiracy. He complained that his imprisonment not only jeopardised his salary, but also his "getting some orders for machinery which would have put a considerable sum of money in my possession".⁵⁸ On the 'Arroyo' estate, the resident *maquinista*, J. McLean, was paid an additional \$812 "for machinery". In the same year another foreign *maquinista*, William Coulson, was given a one-off payment of \$108 "for repairing mill & old engines".⁵⁹

The pay received by *maquinistas* in other sectors was extremely good, too. When planning the construction of a railway from Puerto de Granadillo to the Encrucijada Nueva, near Sagua la Grande, the monthly salary of \$120 projected for the *maquinista* was the highest of all those working on the line, on which the driver would receive \$50, and the firemen and tank fillers just \$25. Even the warehouse administrator would be paid less, receiving only \$92.⁶⁰ Even better paid were the *maquinistas* who succeeded in finding such positions as on the dredger used for cleaning Havana Bay. In 1851, while the six sailors received a meagre \$23 each, and more senior members of the crew took home between \$55 and \$95, the *maquinista* was paid \$300, surpassed only by the captain whose \$850 was extremely high for the period.⁶¹ An important difference compared to other workers was that the *maquinistas*, in common with the plantation administrators and overseers, were paid by monthly salary, regardless of precisely

⁵⁷ ANC, ML, 10789.

⁵⁸ Statement made by Daniel Downing, 28th September 1844 (PRO, FO 72/664, No.41).

⁵⁹ Selected disbursements of the Arroyo Estate, 1852-1853 (BA, HC 4.6.10), Nos.128-129.

⁶⁰ Letter from Santiago Clark to Martin Ruiz Palacios, Pedro Nolzco Abreu & Enrique Emerson, Havana, 25th December 1858 (BL, HEE, MSS Span b.1).

⁶¹ AHM, UCF, 16/1.

how many days they worked in any one month.⁶² In comparison, most estate carpenters, masons and other skilled workers were paid by the day, and hence only received for those days in which there was work to be done. The *maquinistas* could also expect to have their accommodation, food and other necessities included free of charge while they were on the estate.

Not only were the *maquinistas* in Cuba far better paid than other workers in the island, they were vastly better off than their counterparts back in the countries from which they had come. Even very well paid, experienced engineering workers in North America and Europe could not hope to command an income approaching that which they could expect to receive in Cuba. A journeyman engineer in Britain in the 1840s earned the equivalent of just \$20 to \$25 a month.⁶³ In 1867, the average wage for engine drivers, who were the highest paid working class income group in Britain at the time, was the equivalent of just \$35 a month.⁶⁴ Similarly in the United States, good journeymen steam engine makers could expect to earn around \$39.⁶⁵ In Canada, millwrights earned anywhere from \$40 in the West, down to only \$17 on Prince Edward's Island.⁶⁶ William Bisby worked in Charleston, with responsibility for the maintenance of a mill engine, prior to his migration to Cuba. Even his \$95 a month was small compared to the minimum he could expect to earn on a Cuban sugar plantation.⁶⁷

Although they were fairly isolated, in the principal sugar producing districts there would have been several estates in relatively close proximity on which foreign *maquinistas* worked. As a result, there was some scope for developing relationships with others in a similar position to their own. The administrator of the 'Retribución' described how the estate's *maquinista*, John Thompson, often visited, and was visited

⁶² In some cases, daily wages were paid, but only when the *maquinista* was contracted for a short, specific job.

⁶³ Cattell, 'Edward Snell's Diary', p.110.

⁶⁴ Best, *Mid-Victorian Britain*, p.115: they received an average of 35s a week, or approximately £7 a month. The rate of exchange between the pound and the dollar during most of the mid-nineteenth century was £1 = \$5.

⁶⁵ Evidence given by Alexander Jones, 18th March 1841 (PP 1841 (1) vii, p.206).

⁶⁶ PP 1842 xxxi, p.227.

⁶⁷ ANC, CM, 51/1, p.429.

by, two neighbouring “brother *maquinistas*”.⁶⁸ The British-born *maquinista* Henry Elkins owned a black horse, and it was reported that:

he would leave on his horse at whatever hour he liked, once or twice a week, and other occasions when a fortnight would go by in which he only left once.⁶⁹

He does not seem generally to have gone further afield than other estates in the district, most likely to meet with other *maquinistas*, and always went dressed in his work clothes.⁷⁰ According to Fernando Klever, when not prevented by the pressures of work, he would visit Elkins (and on occasion spend the night⁷¹), where he also sometimes met Robert Highton and Daniel Downing.⁷² However, it would have been difficult for a *maquinista* to find time to travel several miles on horseback to other estates to make visits, at least during the grinding season, and it is indicative of how difficult it was to maintain such relationships, that Highton and Downing, who had known each other from before their migration to Cuba (having worked together in New York), never coincided on these visits to Elkins, and never saw each other during their whole time in Cuba, at least until their arrests in 1844, accused of involvement in the *Escalera* conspiracy, threw them and others together in the prisons of Cárdenas and Matanzas.⁷³

Possibilities for advancement

In the industrial contexts from which they came, machinists formed a semi-skilled stratum, distinct from those properly called engineers, though they threatened the latter's sense of craft security.⁷⁴ Upward mobility into these skilled engineering ranks would, as a result, be limited by apprenticeship and craft exclusiveness.⁷⁵ Although “the advance of mechanization” generated “new and rapidly increasing battalions of skilled workers,” in which “the scale of operations was likely to be a world away from the traditional workshop”, they nevertheless succeeded in maintaining a craft identity, defining their working environment as the workshop rather than the factory, in which

⁶⁸ ANC, CM 51/1, p.189 – my translation.

⁶⁹ ANC, CM 51/1, pp.260-262 – my translation.

⁷⁰ ANC, CM 51/1, p.667.

⁷¹ ANC, CM 51/1, pp.260-262.

⁷² ANC, CM 51/1, pp.317-319.

⁷³ ANC, CM 51/1, pp.315-317.

⁷⁴ Crossick, *Artisan Elite*, p.81.

⁷⁵ Crossick, *Artisan Elite*, p.113.

the individual artisan maintained “control of his tools and his product.”⁷⁶ However, as the nineteenth century progressed, this became increasingly difficult to maintain, except for a minority of engineering workers, and one of the attractions for the *maquinistas* who travelled to Cuba was the possibility of working in an environment in which they remained in control. This seems to have provided many, possibly denied by the hierarchical and competitive nature of their craft from rising to full master status, the chance for elevation to a level in their trade that may have eluded them in their homelands.

However, many of those being sought for recruitment were likely already to hold an established position within the trade. Advertisements such as the following show that the sort of worker being looked for tended to be rather more than a simple machinist:

An engineering Firm requires the Services of a GENTLEMAN, of engineering and business experience, to represent them abroad, and to superintend the erection of machinery.⁷⁷

Wanted a Gentleman of thorough practical Engineering experience to proceed to a foreign country to Establish and Manage a Foundry and Engineering Works.⁷⁸

A Well-Educated Engineer is required to proceed to a Sugar Colony. One with Colonial experience preferred.⁷⁹

Wanted, a Practical and Educated Engineer, to go abroad to Erect and Superintend the Working of Sugar and other Machinery. A thorough practical knowledge of the steam engine and millwrights' work, and having served the regular time in the shop, is indispensable. A competent person producing first-class references as to ability, character, &c, will be liberally dealt with.⁸⁰

The *maquinistas* cannot be considered to have formed a homogeneous group. They may have included simple machinists, seeking to break out of restrictive craft

⁷⁶ F. M. L. Thompson, *The Rise of Respectable Society: A Social History of Victorian Britain, 1830-1900*, London: Fontana, 1988, p.40.

⁷⁷ Advert placed in *The Engineer*, 6th November 1857.

⁷⁸ Advert placed in *The Engineer*, 7th June 1861.

⁷⁹ Advert placed in *The Engineer*, 18th July 1856.

⁸⁰ Advert placed in *The Engineer*, 9th December 1859.

practices, alongside those with higher levels of qualification and experience, possibly already considered masters in their own right. Some came from a context of wage labour, entered into wage labour in Cuba, and so remained. Such were the *maquinistas* who travelled from Cornwall, alongside other mining workers, to work the steam engines of the copper mines at El Cobre. They were paid only a small amount more than the other miners: £11, rather than £9, in 1838, and from this they were “to provide themselves in every respect except lodgings.”⁸¹ This was roughly equivalent to the wage of a carpenter on a sugar estate, and hence considerably below the salaries paid to the sugar mill *maquinistas*. Even amongst the latter, though their salaries were high they seem to have spent much of this as readily as they earned it. Some sent a considerable amount back to their families based outside Cuba, and although the annual journeys outside the island provided some with the possibility of earning extra in commission as agents, or establishing their own machine purchase deals; for others, these were dead months, in which the salary they had earned during the first half of the year would be squandered.

Seasonal employment did not simply enable them to divide their time between work in Cuba, and leisure in the United States or Europe. It was very common for planters to take advantage of trips by their *maquinistas* to the United States to use them as agents charged with placing orders with engineering firms, for new machinery and parts.⁸² Although most planters had commercial agents representing them, it was felt that *maquinistas* were most effective in such a role, since they could give very precise specifications to the manufacturers.⁸³ Thus when Henry Elkins travelled back to Britain in 1843 to spend the summer, he placed orders directly with the leading Liverpool firm of sugar machine manufacturers, Fawcett Preston.⁸⁴ In June 1840, Frederick Shuck, the *maquinista* on Francisco Diago’s ‘Caunabaco’ estate, left for the United States carrying a letter of introduction written by his employer to the latter’s commercial representative in New York, Henry Coit. He requested Coit to place an order at the West Point Foundry according to the specifications given by Shuck, who was to return to Cuba in September.⁸⁵ In 1842, the *maquinistas* Reynolds and Sparrow,

⁸¹ Letter from Hamilton Jenkins to William Leckie, 10th March 1838 (RIC, HJ/1/17).

⁸² BNJM, Lobo 111/1.

⁸³ Letters from Charles Edmonstone to A & W Smith & Co, Havana, 28th March & 6th June 1867 (GUABRC, UGD 118/1/2/3).

⁸⁴ Letter from Fawcett, Preston & Co to Henry Elkins, Liverpool, 28th August 1843 (ANC, CM 51/1).

⁸⁵ Letter from Francisco Diago to Henry A Coit, Havana, 16th June 1840 (BNJM, Lobo 109/3).

working for Pedro Diago and Tomás de Juara Soler, spoke on their behalf while in the United States on matters relating to complaints about machinery that had been made by the same Foundry.⁸⁶ The difficulties were apparently resolved, and Reynolds was still working on behalf of Juara Soler in the early 1850s, ordering machinery from the West Point.⁸⁷

The *maquinistas* did not function as simple messengers, but were able to exert quite considerable influence not only over the details of the orders placed, but even with whom they should be placed. In 1849, Joaquin de Ayestarán requested that Ezra Dod, the North American *maquinista* at that time working for him on the 'Amistad', represent him on his visit to the United States. Although Ayestarán had previously made his purchases from the West Point Foundry, Dod appears to have convinced him of the efficacy of placing the order instead with another firm "in which he is interested and whose prices have to be lower than those of West Point".⁸⁸

The *maquinistas* came to represent not only the interests of the plantation owners, but to operate as double agents, also representing the interests of individual engineering companies. Dod's attempt to steer Ayestarán away from the West Point was clearly not an entirely disinterested one. O. J. Reynolds was employed by the West Point Foundry to guarantee the penetration of their machinery into Cuba; and to ensure that they maintained the very profitable contracts with the Diago family and their associates, for whom he was also working. Since there were frequent disputes between the planters and the manufacturers, this led him to be in a somewhat contradictory position, attempting to meet the demands and defend the case of both.⁸⁹ This role as agent led *maquinistas* to come into conflict in Cuba, with agents of rival North American and British engineering companies in increasingly sharp competition.⁹⁰

Often men, who had begun their career in Cuba as simple *maquinistas*, found that with time they were able to capitalise upon their experience and contacts to concentrate

⁸⁶ Letter from Pedro Diago to Henry A Coit, Havana, 31st May 1842 (BNJM, Lobo 111/1).

⁸⁷ Letter from O J Reynolds to William Kemble, Havana, 5th February 1851 (BNJM, Lobo 120/2).

⁸⁸ Letter from Joaquín de Ayestarán to Henry A Coit, Havana, 24th July 1849 (BNJM, Lobo 108/3).

⁸⁹ BNJM, Lobo 109/3.

⁹⁰ Letter from Charles Edmonstone to Moses Taylor & Co, New York, 9th August 1853 (MC, MF 234/26/1).

increasingly on the potentially very lucrative agent business. Daniel Downing, who had arrived in the early 1840s, was still working in Cuba in the early 1860s, though now not on the sugar estates, but as a Havana-based agent. Another *maquinista* turned entrepreneur, Charles Edmonstone, was careful of his relationships with certain companies, with whom he was indirectly doing business, since he was anxious not to give Downing cause for jealousy. Edmonstone's operations were concentrated around Cienfuegos and Santa Clara, and he clearly wanted to remain on good terms with Downing, and not to encroach on the latter's own sphere of influence.⁹¹ William Knight, who had left the Havana-Güines railway under a cloud of scandal, was still in Cuba in the mid-1860s, acting as the Cuban representative of the Birmingham engineering company, Rabone Brothers.⁹² John Lambden, who ran the Havana foundry, acted as a channel for British steam engines into the island.⁹³ The *maquinistas* John Thompson and Joseph Bell operated out of Sagua la Grande as the agents for H. O. Robinson & Co of London, the makers of a wide variety of patented sugar machinery.⁹⁴ As exclusive representatives of this company, not only were they able to secure commissions on orders received, but also – since they were themselves *maquinistas* – could ensure that they would be the ones employed to install and maintain any machinery purchased.

It was a common experience for migrant skilled workers to use the migratory experience as a means for social improvement. Alexander Jones, a North American familiar with engineering practices on both sides of the Atlantic, remarked:

The English artisans that come over at first employ themselves either as journeymen or superintendents, and when they lay by money, they set up for themselves, or unite with Americans who have capital, and become head manufacturers.⁹⁵

The circumstances in which foreign *maquinistas* found themselves in Cuba were particularly suitable for such betterment. Not only did they face little native competition within their trade, but their position as honoured and privileged workers, made them a favourite choice for promotion to more responsible positions. Ezra Dod, who had begun work in Cuba on the Havana-Güines railway and moved into work as

⁹¹ Letter from Charles Edmonstone to Moses Taylor & Co, Cienfuegos, 20th April 1861 (MC, MF, 234/28/3).

⁹² Rabone Brothers to Manuel Blanco, Birmingham, 18th December 1865 (BNJM, Lobo 1).

⁹³ *El Faro Industrial de la Habana*, 16th October 1844.

⁹⁴ *Hoja Económica de Sagua la Grande*, 11th August 1861.

⁹⁵ Evidence of Alexander Jones, 18th March 1841 (PP 1841 (1) vii, p.211).

a sugar estate *maquinista*, eventually became the administrator of one of the plantations where he had been working, the Amistad.⁹⁶ A *maquinista* and iron worker, Mr Annible, was appointed director of the Cárdenas rail workshop in 1839.⁹⁷ It was common practice for the *maquinistas* on the 'Palma' estate to double as temporary administrators, or even to become full-time administrators. This prejudice in their favour may have had something to do with the estate's owner, Henry Emerson, having himself begun as a *maquinista*, before becoming a landowner.⁹⁸ Thus, from around 1869 the former *maquinista* Thomas Clarkson was working as the plantation's administrator.⁹⁹

However, many of the *maquinistas* preferred not to tie themselves in this way to a particular employment. It was common for them to set up on their own in business, when they had managed to accumulate sufficient capital to do so. While Emerson began as a *maquinista*, he gave this up on becoming a wealthy landowner. Though he continued to display an interest in engineering concerns, he ordered machinery from others, and employed *maquinistas* to install and run them for him.¹⁰⁰ Emerson was not the only *maquinista* to succeed in becoming a plantation owner. Francis de Baroub Wolf had become the owner, by the 1850s, of the Nueva Esperanza estate, in Rancho Veloz, near Sagua la Grande.¹⁰¹ Other *maquinistas*, while setting up in business, did so in such a way as to maintain their participation in their craft. Joseph Davis from London owned and ran a foundry in Trinidad, making engine parts.¹⁰² The brothers Thomas and George Worth, who travelled together as *maquinistas*, succeeded in setting themselves up with their own engine workshop in Santiago de Cuba.¹⁰³ At times, the *maquinistas* were able to exploit their links in the commercial networks to become merchants themselves, moving out of the confines of engineering and sugar production. James Lawton was a particularly prominent example. He began in Cuba as the *maquinista* of the 'Saratoga' estate, belonging to the Drake family. He was subsequently "placed by Charles Drake in the Mudd Machine Steamer" – a harbour

⁹⁶ James H. Dod, 'Reminiscences of Cuban Engineering', *Louisiana Planter & Sugar Manufacturer*, 7th February 1914.

⁹⁷ *Diario de la Habana*, 24th November 1839.

⁹⁸ BL, HEE, MSS Span c.7.

⁹⁹ La Palma Estate Book 4 (BL, HEE, MSS Span c.5).

¹⁰⁰ BL, HEE, MSS Span c.2b.

¹⁰¹ ANC, GSC, 1285/50243.

¹⁰² ANC, ME, 2651/D.

¹⁰³ PRO, FO 72/885.

dredger. This was an employment that was generally even better paid than sugar mill work. He eventually succeeded in breaking out of working life altogether, becoming a partner of the British merchant, and former Consul, Charles Tolmé;¹⁰⁴ and also part owner of the Regla steam boat company, with its lucrative business running goods around Havana harbour.¹⁰⁵

The same logic that led some *maquinistas* to become first agents and then double agents, saw some of these taking the step to set themselves up in their own right – designing, constructing and marketing their own products. Edward Beanes migrated to Cuba around 1838, and William Henry Ross in 1843 – both of them working as *maquinistas*.¹⁰⁶ By the 1850s, they were working in partnership, acting as intermediaries between the plantation owners and in-the-field *maquinistas*, and a number of Glasgow engineering companies (in particular Mirlees Watson and Neilsons & Co, for whom they operated as agents). By 1860, they were no longer based in Havana, but had moved to Liverpool, from where they channelled nearly all of Mirlees Watson’s Cuba orders. By then they had firmly established their presence, processing 62 separate orders over a two-year period for many different, and widespread plantations. These were not only for large jobs (engine and mill tandems), but also for many small jobs of spare and replacement parts, demonstrating their on-going, and not just one-off, involvement with their clients.¹⁰⁷ They even began to be involved in the recruitment of foreign *maquinistas* to travel to Cuba. William Whitehorn was employed to go to Cuba by Edward Beanes, where he assisted Beanes in the installation of machinery.¹⁰⁸ In 1862 Ross and Beanes took out a patent together for an improvement in the manufacture of sugar,¹⁰⁹ but that same year appear to have parted company, and were each operating on their own, with the former continuing the business they had begun in Liverpool.¹¹⁰ He continued to be of central importance for the sale to Cuba of Glasgow machinery, still representing Mirlees Watson, but was also ordering merchandise from other Glasgow manufacturers: steam boilers from W. & A. McOnie,

¹⁰⁴ Letter from J. M. Morales to Henry A Coit, Havana, 8th June 1850 (BNJM, Lobo 113/3).

¹⁰⁵ Letter from Morales to Coit, Havana, 14th February 1852 (BNJM, Lobo 113/3).

¹⁰⁶ *Glasgow Herald*, 11th October 1850; ANC, ML, 11910.

¹⁰⁷ GUABRC, Mirlees Watson order book, UGD 118/2/4/1; also GUABRC, UGD 118/2/4/36 & 37.

¹⁰⁸ PRO, FO 72/830, No.24.

¹⁰⁹ British Patent 471 of 1862.

¹¹⁰ GUABRC, Mirlees Watson order book, UGD 118/2/4/34.

and boilers, centrifuges and weighing machines from A. & W. Smith.¹¹¹ Meanwhile, Edward Beanes began to devote his time to making inventions related to sugar production. Though he continued to travel to, and spend time in, Cuba, he set up his permanent residence in Britain, at Maidenhead.¹¹² He was clearly now in a position of capitalising upon his work, and was ordering the construction of his patented machines both for Cuba, and for Puerto Rico;¹¹³ and was establishing his rights in Cuba, Britain and the United States over his inventions.¹¹⁴ Despite the ending of the partnership, Ross continued to order from Mirlees Watson the construction of “Mr Beanes’ Blowing Engines” and vacuum pumps of “E. Beanes patent”.¹¹⁵

Charles Edmonstone was another *maquinista* who managed to capitalise on his familiarity with engineering to set up in business in his own right. Whereas Ross and Beanes relocated back to Britain, Edmonstone remained in Cuba, and the fact of his personal presence appears to have stood him in good stead in the competition with other purveyors of sugar machinery.¹¹⁶ His independence also enabled him to send his orders to be filled “in the United States, England or wherever the buyer wishes to give his preference, an advantage that no other agent can provide.”¹¹⁷ Edmonstone boasted how, while Fawcett Preston and Ross & Beanes were competing, he was getting “the preference over all.” He was even replacing existing engines, such as those sold by Ross & Beanes, with his own throughout the Cienfuegos area – something that his competitors could not counteract, due to their physical absence. “Every engine in this neighbourhood will be in my power,” he bragged, “as soon as the crisis is over.” Edmonstone clearly revelled in his identity as a newly gentrified *maquinista*: “They call me the old Engineer here and come to me as soon as they hear of me.” But while his status may have brought him wealth and influence, it continued to be essentially

¹¹¹ GUABRC, W. & A. McOnie order book, UGD 118/4/1/2; and GUABRC, A & W Smith order book, UGD 118/1/2/3.

¹¹² Edward Beanes, ‘On the various qualities of sugar produced in Cuba and the different modes of manufacture’, *The Sugar Cane*, Vol.2, No.14 (September 1870), p.484.

¹¹³ GUABRC, Mirlees Watson order book, UGD 118/2/4/34.

¹¹⁴ Between 1853 and 1866, eight British sugar-related patents were taken out in Edward Beanes’s name (British Patents 2898 of 1853; 471 of 1862; 283, 1119 & 1136 of 1864; 57 & 2679 of 1865; and 2045 of 1866), and five have been found in the United States patent indexes. The latter show that Beanes was still resident in Havana in 1862, but in London by 1864 (US patents Nos.36,067; 36,988; 42,156; 43,748; 61,917, found in *Subject-matter index of patents for inventions issued by the United States Patent Office from 1790 to 1873, inclusive*, Washington: Government Printing Office, 1874).

¹¹⁵ GUABRC, Mirlees Watson order book, UGD 118/2/4/34.

¹¹⁶ Letter from Charles Edmonstone to Moses Taylor & Co, Cienfuegos, 11th May 1861 (MC, MF 234/28/5).

¹¹⁷ Leaflet advertising Charles Edmonstone & Co (Havana), 1863 (MC, MF 234/27/1).

precarious, depending upon his own exertions, any let up in which could lead to his ruin:

I write hurriedly and very late as I have just returned from a 2 days jaunt ...of a ride of 108 miles in the hot sun alternating with tropical rains. Some of the agents here assert that neither storm or sun has an effect on me. I am so wiry that I have offered to bet that I will kill any 5 horses that can be brought me without rest to myself and one after another with fair fatigue. Today they find me at Cienfuegos next day at Villa Clara next day at Sagua and two days after at San Juan de los Remedios.¹¹⁸

Many *maquinistas*, for all that they earned well during their lifetime, had little to show for this upon their death. Although the British Consul described Charles Shudwick, an engineer at the Regla foundry, as being “possessed of considerable property”, what he should have added was “for a worker”. The fortune Shudwick supposedly held was considerably lower than anything that the Consul, or anyone else from the latter’s social class, would have considered appropriate for their rank. Even when the Consul’s salary was reduced (despite perennial demands for an increase, due to the high cost of living in Havana) from £1200 to £1000 in 1849,¹¹⁹ he was clearly still in an entirely different station in life from Shudwick, who by his death had managed to accrue property and savings worth no more than £200.¹²⁰ Robert Shollick of Preston, England, working at the Havana gas works, left an estate valued at just £223.¹²¹ Two British *maquinistas* working for the Spanish Navy held savings in the Havana Savings Bank of only £115 and £122 each.¹²² Another British marine *maquinista*, William Venning, left a paltry £41 12s 7d on his death.¹²³ Andrew Adams, a Scottish *maquinista* working on a sugar plantation, died in 1852, with just the \$33 balance of his salary, and a horse and clothes worth around \$27 to show for his time in Cuba, a total worth a mere £12. Over a third of his estate was subsequently lost in official fees.¹²⁴ When he was murdered in 1858, Andrew Gardner Metcalfe (a *maquinista* working near Guanajay) left a “trifling” £92 to be sent to his family.¹²⁵ Although Fernando Klever,

¹¹⁸ Edmonstone to Moses Taylor & Co, 11/5/61 (MC, MF 234/28/5).

¹¹⁹ Letter from Palmerston to Crawford, London, 16th June 1849 (PRO, FO 72/760).

¹²⁰ PRO, FO 72/830, No.19.

¹²¹ Letter from Crawford to Clarendon, Havana, 17th October 1854 (PRO, FO 72/852, no.43).

¹²² Letter from Crawford to Captain General, Havana, November 1858 (PRO, FO 313/54).

¹²³ Letter from Crawford to Clarendon, Havana, 19th October 1854 (PRO, FO 72/852, no.45).

¹²⁴ Letter from Crawford to Malmesbury, Havana, 13th December 1852 (PRO, FO 72/888, Case 13).

¹²⁵ Letter from Crawford to Malmesbury, Havana, 22nd September 1858 (PRO, FO 72/944, no.45); and letter from Crawford to Malmesbury, Havana, 26th May 1859 (PRO, FO 72/966, no.15).

who died the year following his imprisonment for alleged involvement in the *Escalera* conspiracy, owned a house in Havana worth \$685, his liquid wealth was a meagre six ounces of gold, nowhere near sufficient to meet the needs of the four young children he left behind, who were entirely dependent upon him following the death of their mother. His other possessions demonstrate just how hand to mouth the life of such *maquinistas* was. Though his salary probably provided him with the means for a relatively comfortable daily existence and to pay for the education of his sons, Klever seems to have possessed only four shirts, one pair of trousers, and two waistcoats; “a belt with a silver buckle”; a number of silver items; and an old, very used, small mahogany table. As many inventors have discovered, that he also had a patented invention to his name (for a sugar mill pump), this was by no means an automatic passport to wealth and status.¹²⁶

These *maquinistas*, although they did not succeed in amassing large wealth, at least remained solvent. But there were some who were not even that fortunate. Though Alexander McCloud (Scottish *maquinista* on the ‘Júcaro’ estate, near Sagua la Grande) died in 1846 leaving no “debts nor reclamations against his property”, this property was “of little value”.¹²⁷ At least he owed no money. On his death from yellow fever in 1853, Edward Hume (second engineer on the Spanish war steamer ‘General Lizo’) “was not possessed of any property whatever but on the contrary, he was considerably in debt to the person with whom he lodged [and] others”.¹²⁸ Both of these *maquinistas* were in employment, and though they failed to save any wealth, they may have been living the good life enabled by their salaries (or possibly even remitting funds to their family overseas). For all that foreign *maquinistas* were in high demand, not all were able to secure employment, and may have faced periods of unemployment, just as they would have done in their countries of origin. In such circumstances, not only without a salary but also lacking anywhere to live, they faced vagrancy. William White, from Scotland, had been working in Cuba from 1859. However, in 1866 (aged 65 years), he found himself out of work, and was sleeping rough in Havana, forced to beg in order to survive.¹²⁹

¹²⁶ ANC, Escribanía de Salinas, 178/2463. The patent only seems to have been held in Cuba.

¹²⁷ Letter from Crawford to Captain General, Havana, 20th January 1847 (ANC, GSC, 852/28757) – my translation.

¹²⁸ Letter from Crawford to Earl of Clarendon, Havana, 27th May 1854 (PRO, FO 72/852, no.22).

¹²⁹ ANC, ME, 2647/Ag.

A few succeeded in accumulating capital and power through their work, and clearly aspired to break out of a life of exploitation, to obtain a stake for themselves in the system they had hitherto worked for. Such aspirations in the countries from which they came would for most have led to not a great deal more than a better house in a better neighbourhood, and a security of employment that permitted a 'respectable' lifestyle. In Cuba, every upward step in the career of these *maquinistas* could bring rich dividends, which helped to generate further upward progression for those who managed to enter into this path. Well-paid as workers, they were able to accrue sufficient savings and experience to enable them to buy some land, or establish their own workshop, or enter into commerce, or come up with an invention of their own, which, if successful and widely adopted, could potentially make their fortune.

Samuel Evans was able to become "very comfortably established", and was able to send £59 8s to his wife "so as that Mrs Evans may come to Havana when she pleases." While not a fortune, that he could afford to send in a single lump sum the equivalent of \$300 (two months salary for a *maquinista* in Cuba, five months for other skilled workers on a sugar plantation, ten months for many of his trade back in Britain) is an indication that he had succeeded in attaining a significant level of financial security.¹³⁰ On his death John Bullen, a *maquinista* from Bath living in the Puentes Grandes suburb of Havana, was "in possession of real property, consisting of houses and lands of some value".¹³¹ Another Briton, John Caldwell, died in Cuba leaving an estate valued at almost £1000 (after subtracting the considerable death duties and costs charged by the Cuban authorities). In addition, he owned two houses in Baltimore, in the United States.¹³² The *maquinistas* did not have to wait to complete many years of service before being able to become property owners in this way. In 1843, just two years after his arrival in Cuba, Henry Elkins was already able to negotiate for the purchase of a house in the English countryside, no doubt preparing for his eventual (and given his earnings, perhaps not too distant) retirement.¹³³

Although such *maquinistas* quickly became comfortably off, their potential wealth was modest when compared with those who – like Beanes and Ross, and Charles

¹³⁰ Letter from Crawford to Malmesbury, Havana, 1st July 1858 (PRO, FO 72/944, no.36).

¹³¹ Letter from Turnbull to Palmerston, Havana, 21st August 1841 (PRO, FO 72/888, Case 6).

¹³² Letter from John V. Crawford to Earl Russell, Havana, 2nd October 1862 (PRO, FO 72/1041, no.37).

¹³³ Letter from E. M. Green to Henry Elkins, Ashby de la Zouche, Leicestershire, 17th January 1843 (ANC, CM 51/1, p.273).

Edmonstone – succeeded in setting up in business in their own right. The Worth brothers, who set up a machine workshop in Santiago de Cuba building on the relationships they had established through their prior engagements with planters in the area, were able to sell their business for \$22,000. They seem to have left Cuba with this, and it would have provided them with more than sufficient to establish themselves wherever they eventually settled.¹³⁴ Even more striking is the success story of Henry Emerson, who made his start in Cuba in 1838 building a water mill to grind cane on the Ingenio ‘Santa Bárbara’ (near Banes), for José Montalvo y Castillo. This first contract earned him \$4,500.¹³⁵ This clearly gave him a good start to his life in Cuba. By 1840, he was loaning money to others, and managed to save enough to purchase a coffee plantation. By 1848, he had entered into partnership with the Irish-American carpenter-turned-landowner, Theodore Phinney. Together they bought ‘La Palma’ sugar estate, with Emerson bringing the equivalent of \$6,301 in money and \$9,519 in slaves, oxen and carts.¹³⁶ By the time Emerson married Jane Harris Bellin around 1854, his share in ‘La Palma’ was valued at \$100,000.¹³⁷ Ten years later he was sufficiently solvent to be able to purchase his deceased partner’s share.¹³⁸ By this time, ‘La Palma’ was valued at \$236,246.77.¹³⁹

The above shows a wide variation in career paths that led to the *maquinistas* becoming divided as a group. Although *maquinistas* such as Charles Edmonstone, Edward Beanes and William Ross proved capable of combining the engineering trade with successful business dealings, they were possibly the exception rather than the rule. For most *maquinistas*, it was not necessarily immediately apparent just how valuable their skills were to Cuba at this time; and even if it were, since they were already earning considerably more than they could ever have hoped to earn in their countries of origin, it was not necessarily within their aspirations to claim all that they could have done. Despite his considerable experience, Ezra Dod seems to have failed to have the foresight to patent all the numerous inventions and improvements that he made both in railway and sugar engineering. As a descendent of his commented later:

¹³⁴ PRO, FO 72/885.

¹³⁵ Contract between José Montalvo y Castillo and Henry Ezequiel Emerson, Havana, 8th May 1838 (BL, HEE, MSS Span b.1).

¹³⁶ Contract between Emerson and Phinney, Cárdenas, 1st April 1852 (BL, HEE, MSS Span b.1).

¹³⁷ Last will and testament of Henry Emerson (BL, HEE, MSS Span b.1).

¹³⁸ Notary statement made by Theodore W. Phinney, New York, 19th October 1864 (BL, HEE, MSS Span b.1).

¹³⁹ Valuation of the Ingenio ‘La Palma’, 1860 (BL, HEE, MSS Span b.1).

It is quite evident that if Mr Dod had patented all his inventions he would have become a very wealthy man. Every locomotive in America, would have paid him royalty and every sugar factory in the world, cane or beet, would have paid him tribute. Not upon one, but on several inventions.¹⁴⁰

Others instead laid claim to the privileges that Dod failed to secure, leaving him to live out his working life in relative obscurity.¹⁴¹

The *maquinistas* and the advance of technology

If it had not been for the growing awareness by a number of pioneering Cuban planters of the necessity for technological development in order to increase production, and improve the quality of their product, the initial steps towards the introduction of machinery which brought the *maquinistas* to Cuba may not have been made. However, for all that such planters often claimed the credit for the advances that were introduced, they could not have embarked on their 'experiments' but for the presence of these skilled workers. Moreover, with time the *maquinistas* were themselves able, through their experience, to make many contributions to the development of the industry, and through them Cuba became more closely tied into the technological network through which European and North American engineering was modernising the planet.

Technological innovation

In the early 1830s, Alejandro Oliván was commissioned by the Cuban Real Junta de Fomento to travel to Jamaica and Europe:

to bring us the best system for manufacturing sugar, with which we could obtain the greatest quantity and with most economy of combustible material, while at the same time improving the quality of the fruit.¹⁴²

He returned with the plans for a new sugar train, recommended by the French engineer Derosne.¹⁴³ However, only one planter tried to implement this, though with

¹⁴⁰ James H. Dod, 'Reminiscences of Cuban Engineering', *Louisiana Planter & Sugar Manufacturer*, 7th February 1914.

¹⁴¹ Dod's family appears to have subsequently learnt from his earlier mistakes. Two British and United States patents have been found dated 1872 and 1873, in the name of "S. Dodd", with residence given as Havana (*Subject-matter index of patents*, 1874).

¹⁴² Villa Urrutia, *Informe presentado*, 1843, p.6.

¹⁴³ Alejandro Oliván, *Informe a la Junta de Gobierno del Real Consulado sobre el ensayo del nuevo tren de elaborar azúcar, sentado en el ingenio de San José*, Havana: Imprenta Fraternal, 1831. This quite radically differed from the existing Jamaica trains in that, rather than involving the transferral of the sugar down a series of progressively smaller pans, used a vacuum apparatus to achieve evaporation of the

such modifications as to all but cancel the advantages.¹⁴⁴ In fact, up till at least 1840, with the exception of some change in size and positioning of the pieces, Jamaica trains continued to dominate production.¹⁴⁵

But Cuban sugar producers continued to be on the look out for technological developments that might usefully be applied to their industry.¹⁴⁶ Influential planters, such as Joaquín de Ayesterán, became students of milling and refining technology, eagerly learning all they could from developments in Europe and North America, and seeking to apply them to their own industry:

[N]o procedure that has successfully been applied to the refining of sugar can fail to have even more advantageous application in the initial fabrication of this article, which is why, far from looking in envy or with ill will upon the advances in refining, we follow them with great interest, as if it were a school in which we may receive very useful lessons from teachers more able than ourselves.¹⁴⁷

In 1850, Ayesterán travelled to Europe, visiting the important engineering centres of Liverpool, Birmingham and Paris. He returned to Cuba with the materials and machines he needed to modernise his 'Amistad' estate.¹⁴⁸ The previous year he had become the first planter to install centrifuges in a Cuban mill,¹⁴⁹ just five years after the first ever demonstration of the use of a centrifuge for separating sugar crystals, at Sudenberg in Germany.¹⁵⁰ These machines greatly speeded up the process of separation of sugar crystals and molasses, which hitherto could take between thirty and fifty days to complete.¹⁵¹

sugar, and hence its concentration to a state ready for crystallization (see Moreno Fraginals, *Sugarmill*, p.113).

¹⁴⁴ J. A. Leon implies that this was by an English sugar company (Messrs George Brothers, of Dale Street, London), established on the banks of the River San Juan near Matanzas. Their sugar factory included four vacuum pans – the earliest evidence of the use of such technology in Cuba (Leon, *On Sugar Cultivation*, 1848, p.17). However, these appear to have been of a design (that of Howard) that required large quantities of water to condense the steam (necessary for the maintenance of the vacuum). As a result, the use of this model was not extended

¹⁴⁵ Villa Urrutia, *Informe presentado*, 1843, pp.6-7.

¹⁴⁶ José Luis Casaseca, 'De la necesidad de mejorar la elaboración del azúcar en la Isla de Cuba, y de las mejoras de que es susceptible esta fabricación', Memorial presented to the Junta de Fomento, Havana, 1843 (ANC, GSC, 1651/82704).

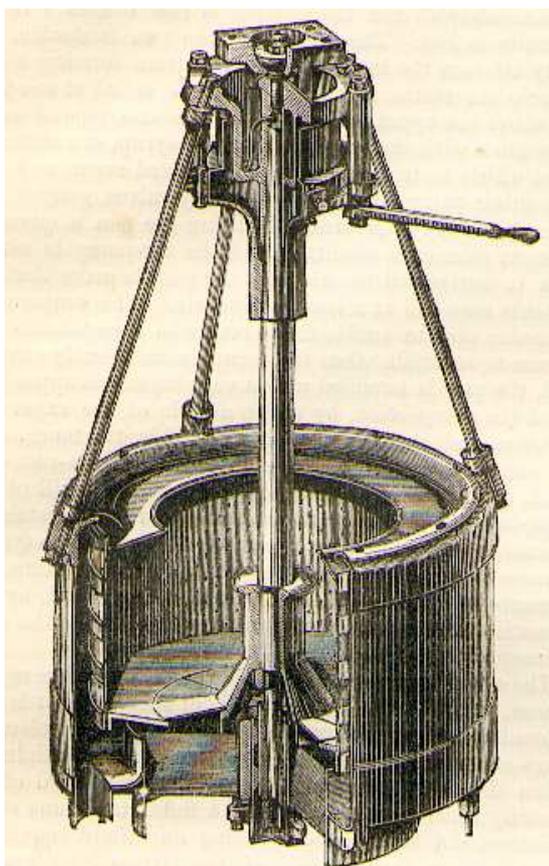
¹⁴⁷ Letter from Joaquín de Ayesterán to Henry Coit, Havana, 3rd September 1849 (BNJM, Lobo 108, Vol.3, File 1) – my translation.

¹⁴⁸ BNJM, Lobo 108, Vol.3, File 2.

¹⁴⁹ Ayesterán imported a Cail centrifuge 1849; Benson & Day exhibited another at Regla, 1850 (Moreno Fraginals, *Sugarmill*, p.117).

¹⁵⁰ Geoffrey Fairrie, *Sugar*, Liverpool: Fairrie & Co., 1925, p.168.

¹⁵¹ Moreno Fraginals, *El Ingenio*, Vol.1, p.232; and Martínez-Fernández, *Torn Between Empires*, p.99.



IX - An example of a sugar centrifuge

(Engraving from unknown source)

Although generally acting on their own behalf, these innovative planters discovered that they could expect much encouragement from the government, which was:

persuaded ...that all machines destined for operations that facilitate the elaboration of sugar or of tobacco, the harvest or preparation of coffee, are worthy of great appreciation, since they are applied to the three most important well springs of wealth for the Island.¹⁵²

In 1851, Pedro Diago intended to travel to London, under authority of the *Sociedad Económica* and *Junta de Fomento* (the principal state-sponsored organisations behind the modernisation and liberalisation of the Cuban economy) to visit the Great Exhibition, “with the aim of studying all that may be useful for the interests of the country”. Although in the end he was unable to make the journey, due to ill health, he took advantage of his enforced stay in New York to obtain similar information there.¹⁵³

¹⁵² *Memorias de la Sociedad Económica*, Tomo 36 (1848), pp.181-183 - my translation.

¹⁵³ *Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana*, Tomo IV (1851), p.248 - my translation.

Wenceslao de Villa Urrutia had been enquiring into the use of vacuum pans since 1835, though he discovered that conditions in Cuba made it difficult to obtain sufficient amounts of cold water to enable the necessary condensation. This problem was alleviated by Derosne and Cail in Paris, and Villa Urrutia imported the first such pans to be used in Cuba in 1841, their installation being overseen by Derosne himself.¹⁵⁴ This new system not only produced a higher sugar-to-cane ratio, it limited the amount of manual handling needed during the process to a minimum.¹⁵⁵ Villa Urrutia discovered that, with the vacuum evaporation enabled by this Derosne train, 75% of his production was now of high quality white sugar, compared to just 36% when using a Jamaica train. Production was also more efficient, obtaining almost twice as much sugar from the same amount of cane, yet using the same number of workers.¹⁵⁶ By 1843, Villa Urrutia had been followed by Joaquín de Arrieta, owner of one of the largest sugar mills of the period, the 'Flor de Cuba'.¹⁵⁷ He introduced his first Derosne train in 1844, finding that it "had the result of a notable increase in production, without having recourse to increasing much the costs nor the labour required to employ it", so performing "an important service to the country".¹⁵⁸ It seems, though, that the costs of making this possible were prohibitive. By 1848, Villa Urrutia was bankrupt largely as a consequence of his influential experiments.¹⁵⁹

Despite such advances, it was not until the 1850s, with the slave trade in terminal decline, that attention began to turn to the possibility of applying steam technology to the work of planting and harvesting, "these important and prior operations" being

¹⁵⁴ Villa Urrutia, *Informe presentado 1843*, p.7.

¹⁵⁵ Denslow, *Sugar Production*, p.86; José Luis Casaseca, *Discurso inaugural ...al instalarse en La Habana la cátedra especial de aplicación de la física y de la química a la industria y a la agricultura*, Havana: Imprenta del Gobierno, 1845.

¹⁵⁶ Villa Urrutia, *Informe presentado, 1843*, pp.9-14.

¹⁵⁷ The 'Flor de Cuba', in the Macagua district near the town of Colón (one of the principal areas of the mid-nineteenth century sugar frontier), in 1860 had the fourth highest production figures in the country. Nine out of the top ten producing estates in Cuba by this time were using some form of Vacuum pan, with only one still making use of a Jamaica train (Rebello, *Estados relativos* 1860).

¹⁵⁸ Detailed description of Ingenio Flor de Cuba, 1856 (Typescript from undeclared source, BNJM, Lobo 154) - my translation. It is interesting to note that, despite the search in Cuba for more efficient technology, given the problems there of labour and fuel shortage, there was much lower acceptance of the Rillieux trains, developed in Louisiana, which were both cheaper to install, and generally more productive (Heitman, *Modernization of Louisiana Sugar*, pp.37-9; Ely, *Cuando reinaba...*, p.537). By 1860, on 20 sugar mills were using the Rillieux system, compared with 32 using the Derosne (Rebello, *Estados relativos*, 1860).

¹⁵⁹ *Reports from the Secretary of the Treasury* (1848), p.249.

“performed almost as unskilfully as when Sugar was first made from the Cane”.¹⁶⁰ In 1856, *The Engineer* reported on such an exploratory visit to Britain:

One of the largest landed proprietors ...is now introducing steam-culture upon his Cuban estates, for the purpose of superseding horse and slave labour. Experience having taught him that slave labour was not only more expensive than free, but that it also increased the expense of horse labour - “a lazy horseman always making a lazy horse” - he, along with his engineer, lately visited this country, in the hopes of being able to abridge labour by steam machinery.¹⁶¹

Such innovations had become necessary, not only because of problems of labour shortage, but also because the introduction of powerful steam engine and mill tandems had greatly increased the potential capacity of the mills. It became a common occurrence for the grinding process to be a stop-start affair, with slaves being switched backwards and forwards between the fields and the factory throughout the season. A stock of cane would be built up, the mill put into operation, only to get through the cane faster than it could be brought in from the fields, resulting in grinding coming to a halt until a fresh stock could be built up again.¹⁶² It was this that led to the development of mechanised methods of bringing the cane in, such as the introduction of portable rails that could be readily moved to whichever field was currently being cut, and which enabled the cane to be transported quickly to the mill.¹⁶³ Overly powerful mills also led to the clarification and evaporation processes not being able to keep up, with the result that the cane juice would be left to stand, with resultant deterioration.¹⁶⁴

The irregular pace of grinding was very costly in fuel, since each restart required the steam engine’s boilers to be heated up again. This partly prompted scepticism in Cuba in the 1830s over the introduction of steam, rather than animal, power. In 1831, Alejandro de Oliván, one of Cuba’s leading experts on sugar production, commented “that the horizontal ox mill is better for Cuba and is the most appropriate for a rural industry”.¹⁶⁵ However, steam won out, partly because of the savings made with the elimination of the fifty to eighty yoke of oxen that a typical steam engine replaced, but

¹⁶⁰ H. Crosley’s prospectus, 1845 (BA, HC 2.326).

¹⁶¹ *The Engineer*, 7th November 1856, p.613.

¹⁶² This can be clearly seen as late as the 1860s and 70s in the day books of the ‘La Palma’ Estate, near Sagua la Grande, owned by the North American Henry Emerson (BL, HEE, MSS Span c.4 & c.5).

¹⁶³ Patria Cok Marquéz, ‘La introducción de los ferrocarriles portátiles en la industria azucarera, 1870-1880’, *Santiago*, 4 (March 1981), pp.137-47.

¹⁶⁴ McCulloh, in *Reports from Secretary of the Treasury* (1848).

¹⁶⁵ Oliván, *Informe a la Junta...*, 1831.

principally because of the massive potential increase in production that the engines brought, even enabling the connection of multiple mills to a single engine, and the higher quality of sugar facilitated by steam heating and vacuum evaporation. Despite this, the change to steam did not bring a noticeable increase in the sugar-to-cane ratio, which required the aforementioned improvements to the subsequent stages of production.¹⁶⁶

The pace of innovations increased, as the Cuban sugar industry rapidly expanded. In 1849, the Count of Fernandina installed on his 'Agüica' estate "a famous sugar train invented by Mr Lannier, which promises to manufacture sugar at least equal to the best of the Jamaica trains, without the excessive cost that comes with the use of animal carbon."¹⁶⁷ The Ingenio 'Victoria' adopted a system developed in Puerto Rico, by which the mill was powered by the steam escaping from the sugar train. Similarly, triple effect trains built by Derosne and Cail of Paris were installed on the Ingenio 'Santa Susana', with the advantage of allowing the reuse of exhaust steam coming from all the engines and the defecation process;¹⁶⁸ requiring lower pressure on the pistons; and having vertical tubes which remained free from the condensation that horizontal tubes suffered. The sugar mills 'Armonía' and 'Santa Rosa' became the first Cuban estates to introduce low-pressure apparatuses; and the 'Buena Vista' mill in Trinidad had a small steam machine for breaking up sugar, so saving on the labour of six slaves having to break the sugar with their feet.¹⁶⁹

Technological influence of the foreign maquinistas

As the market for sugar technology increased, engineers began to establish patents in Cuba for their inventions, and obtain privileges for their use on the island. These were often for relatively small adjustments to the existing technology. For example, in 1848, Drake Brothers of Havana took out a patent on behalf of the New York engineer J. C.

¹⁶⁶ Moreno Friginals, *El Ingenio*, Vol.1, pp.210-14.

¹⁶⁷ José María de la Torre, in *El Faro Industrial*, 23rd January 1849 (BNJM, C.M.Morales, T.1, No.1) – my translation. Animal carbon or bone charcoal filtering was the final stage before crystallization, and needed very expensive equipment. It is not clear how Lannier proposed to overcome this. However, by the 1850s at least some estates had integrated carbon filters into the process (Cantero, *Los ingenios*, 1857), and if the overall system was well designed to produce high quality sugar, this may have made good economic sense.

¹⁶⁸ Although only very low-grade steam would have been expelled from the defecation process, and hence unlikely to have had much further use.

¹⁶⁹ Cantero, *Los ingenios*, 1857.

Perry for a new arrangement of boilers applicable to steam engines.¹⁷⁰ Hugh and Robert Lafferty, of New Jersey, invented and obtained a privilege for introduction into Cuba of a new centrifuge machine, which had the effect of simplifying construction, and reducing the weight while increasing the efficiency of the baskets or cylinders.¹⁷¹

Such small innovations came because of the experience gained in putting the radical new advances into operation. The *maquinistas* working in Cuba were not simply installers and operators of machinery; and the step up into business made by some was not necessarily made for commercial reasons, nor because of having saved money from their earnings. Their time working in Cuba provided them with the knowledge and experience necessary to make contributions to further technological development – both in the local, Cuban context, and internationally, as suggestions made by them were taken up by the engineering companies who (being in hot competition with one another) were keen to adapt their machinery to the specific requirements of their potential clients. This was an effect that was not peculiar to the *maquinistas* in Cuba. It had long been recognised that many improvements in machinery were “suggested by the workmen themselves”.¹⁷² This was the route by which many of the leading engineers of the day had climbed to the peak of their profession. When one British machine maker was questioned about this in 1841, he remarked that “very often” operative mechanics would suggest an “important improvement”, and the likelihood of this increased as his experience rose. Thanks to this “we have a number of men who have risen from being common mechanics to being men of great eminence”.¹⁷³

Since it was common for the foreign *maquinistas* in Cuba to have been selected because of their already proven skill and experience, and given the importance that Cuba held for developments in the sugar industry, it should not be a surprise that a number of them proved to be particularly influential in this respect. In 1841, Pedro Diago was praising one *maquinista* who visited his estates for being “a very capable man. He goes with me to see some machines so as to show him the pieces that need

¹⁷⁰ Drake Hermanos, Havana, 25th October 1848 (ANC, ME, 1586/K).

¹⁷¹ ANC, Gobierno General (GG), 156/7879.

¹⁷² Evidence given by Philip Taylor (engineer), 20th February, 1824 (PP 1824 v., p.38). Also Jeremy, *Transatlantic Industrial Revolution; and Artisans, Entrepreneurs and Machines*.

¹⁷³ Evidence of William Jenkinson, 17th March 1841 (PP 1841 (1), vii, p.112).

some reform".¹⁷⁴ This was often the way of it: a planter would purchase an engine from a foreign manufacturer, but in practice would discover its shortcomings. The *maquinistas* in the field were the ones who had to cope with these shortcomings, and find some way of overcoming them. At times this gave them considerable power, since the planter would rely upon them for the giving of precise instructions to the engineering company.

It also provided them with the opportunity to become increasingly skilled and knowledgeable about all aspects of the sugar production process, and not just that which directly concerned the operation of the steam engine. Edward Beanes, "besides being a practical engineer, has, from a twelve years' residence in Cuba, made himself fully acquainted with all the details of sugar-making".¹⁷⁵ As a result, they became capable of introducing improvements that ranged from the initial grinding of the cane and the connection of the mill to the steam engine, through all the processes involved in the production of the sugar itself, to final packaging. Many of the investigations being carried out by planters such as Ayesterán and Arrieta were in fact based upon the work of the *maquinistas* they had working, usually anonymously, for them.

From the earliest days of the presence of foreign *maquinistas* in Cuba, patents began to appear for the inventions and improvements that they were making. In 1840, the British-born planter George Knight had contracted the Regla foundry in Havana to construct a pneumatic pump with which to 'purgar' the sugar through the use of a vacuum. This was based on the experiments carried out by William McKinson.¹⁷⁶ In 1850, the Morgue brothers (French *maquinistas* resident in Havana) were developing and constructing steam engines and other pieces of sugar machinery of their own design;¹⁷⁷ and by 1852, they were introducing improvements in sugar centrifuge machines.¹⁷⁸ They came to make quite a name for themselves in Cuba, largely as a

¹⁷⁴ Pedro Diago to Coit, Havana, 6th February 1841 (BNJM, Lobo 111/1) – my translation.

¹⁷⁵ *Glasgow Herald*, 11th October 1850 (in Thomas Kerr, *A practical treatise on the cultivation of the sugar cane and the manufacture of sugar*, London: John Griffin & Co & Richard Griffin & Co, 1851).

¹⁷⁶ *Memorias de la Sociedad Económica*, Tomo X, 1840, p.169.

¹⁷⁷ *El Faro Industrial de la Habana*, 2nd July 1850.

¹⁷⁸ ANC, Intendencia de Hacienda (IH), 743/31. Early centrifuges shook themselves apart fairly quickly, until improved bearing designs introduced (eg Bessemer patent 1850). Numerous patents at this time to improve centrifuges show it was a developing area for a piece of equipment now playing an important part in both manufacture and refining.

result of their response to the practical problems faced by those who were operating the centrifuges on the plantations. By 1862, they were able to boast:

We have the pleasure to see our centrifuges ever more appreciated by the Gentlemen landowners, which we accept as recompense for our tirelessness in making the successive improvements that we have continually made. Five years ago our centrifuges were provided with brakes, and these have been changed three times, on each occasion with such improvements that today we can stop the centrifuge almost instantaneously without it being exposed to the decomposition as previously occurred.¹⁷⁹

The North American *maquinista*, Ezra K. Dod, was particularly influential in the inventions that he made. He came from an engineering family. His father, Daniel Dod, was involved in the building of the first trans-Atlantic steamer, and had made a number of inventions himself: the slide valve marine condenser, and the side lever engine. He was also “the first to build a steamboat without a flywheel.” Even prior to travelling to Cuba (where he began by working on the Havana-Güines railroad) Ezra Dod had made a name for himself through the invention “of the eight-wheeled outside connected locomotive as first used in America and practically the same as those ...in use throughout the New World.” Having been obliged to leave his job on the railways, due to official anti-foreigner policies, he spent many years working on Cuban sugar plantations, and came to make a number of important improvements to the sugar machinery. His first contribution was to propose reducing the speed of the mill rolls to one-half, thereby increasing their efficiency:

He recommended the construction of two mills instead of one, to be placed upon either side of an engine of twice the power, driving the mill rolls at three ...revolutions, instead of the usual seven. The result was an enormous gain in juice extraction and reduction of time in drying the bagasse and the plan was universally adopted.

While working on the ‘San Manuel’ plantation of the Pedrosos, he invented a “tubular juice heater”, which “worked with the exhaust steam of the mill engine as the estate had no multiple effect”. Then came an “upright tube vacuum pan”, which he developed on the ‘Louisa’ sugar estate: “this was composed of a double effect, a strike pan and juice heater, all with upright tubes”. Dod also designed a new housing for the mill, which he erected on the ‘Amistad’ plantation, where he also successfully

¹⁷⁹ *El Siglo*, 2nd August 1864 – my translation.

demonstrated the advantages to be gained by placing the cane carrier in such a way as to ensure that the cane entered at right angles to the mill rollers.¹⁸⁰

Such inventions demonstrated the scope of technological engagement by the foreign *maquinistas*. Not only were they capable of making considerable improvements in the running of the steam engine/mill tandem that was the principal focus of their work, but also to other aspects of the sugar-making process. In addition to such major improvements exemplified above, a myriad of patents and privileges appeared for more minor inventions.¹⁸¹ In 1851, Ezra Dod himself patented an invention for heating and concentrating sugar cane juice, or any other liquid, using low-pressure steam.¹⁸² He extended this same invention in 1858, with further improvements.¹⁸³ In 1837, the Russo-Germanic *maquinista* Fernando Klever patented a boiler house pump, which he named the *Bombeo de Jabaco*.¹⁸⁴

whose simple procedure is an improvement over existing ones, for the speed with which it executes the transferral ...[and] the four pieces placed in such a way that it will work for many years with considerable savings in time and expenses.¹⁸⁵

The North American *maquinista*, Hiran Havens, invented a machine for degreasing sugar in 1843 with another *maquinista*.¹⁸⁶ In 1847, Charles Edmonstone patented two new inventions: a fuel-saving, easy-clean tube system, for the heating of water for steam engines; and a new method by which to move liquid from one sugar pan to another.¹⁸⁷ In 1851, Elisha Fitzgerald and Hezekiah Bradford together invented a “useful advance” in machinery for the separating of substances of different gravities.¹⁸⁸ In 1852, Edward Beanes invented an apparatus for the clarifying of sugar cane juice;¹⁸⁹ and in 1857, James Ross, a water indicator “applicable to all kinds of steam pan”.¹⁹⁰

¹⁸⁰ *Louisiana Planter & Sugar Manufacturer*, 7th February 1914 and 11th September 1915.

¹⁸¹ Privileges were the Cuban equivalent of patents. They provided exclusive use in the island of a particular invention or advance over a period of usually 5, sometimes 10, and on rare occasions as many as 50 years. Although some privileges were for new inventions made by the owner of the privilege, many simply governed the introduction into the island of other people’s inventions.

¹⁸² ANC, IH, 743/19; and RCJF, 207/9308.

¹⁸³ ANC, ML, 1336.

¹⁸⁴ ANC, IH, 741/3.

¹⁸⁵ BNJM, Sociedad, T.16, no.45.

¹⁸⁶ ANC, IH, 785/23.

¹⁸⁷ ANC, RCJF, 207/9308.

¹⁸⁸ ANC, IH, 743/24.

¹⁸⁹ ANC, IH, 743/11.

¹⁹⁰ ANC, ML, 1336.

All the above were machines or apparatus of one form or another. What is more surprising is that some *maquinistas* began to make chemical experiments, and introduced improvements not just in technology but also in the materials themselves. Around 1843, William Bisby sought to patent a new metal amalgam that he had developed.¹⁹¹ In 1862, Edward Beanes was able to patent (not just in Cuba, but also in Britain and the United States) “a new and useful improvement”. This was “the use of ammonia for neutralizing the acids developed in the manufacture and refining of sugar”;¹⁹² and two years later was patenting improvements in the preparation and treatment of the animal carbon used in the sugar-making process.¹⁹³

The above examples are not exhaustive, but merely intend to demonstrate the great scope of involvement by the *maquinistas*, not only in the development of the Cuban, but also the international sugar industry. Those who turned to inventing often became quite prolific, showing the great potential for those who were so minded to capitalise upon their experiences working in Cuba. In 1857, Charles Edmonstone took out three separate privileges, as did James Fogarty over that and the following year. In 1861 alone, Edward Beanes took out four separate Cuban privileges for such inventions and improvements.¹⁹⁴ It was not just to all aspects of sugar production that these *maquinistas* were turning their hand. Michael Glynn, an Irish *maquinista* living in Matanzas, patented in 1871 his invention for a chimney and spark collector for railroad locomotives – responding to the common problem of trains causing fires in dry sugarcane fields.¹⁹⁵ Edward Beanes designed a sulphurous gas apparatus, which he was having constructed by Mirlees Watson, for sale in Cuba.¹⁹⁶ Hiran Havens invented machines as diverse as one for the making of bread, and another for the shelling and whitening of rice.¹⁹⁷

In 1845, a privilege was requested by José Pizarro y Gardin for a double pressure mill that had been invented by the *maquinista* of his estate (the ‘Triángulo’). Although this was not the first ever use of a mill using four rolls so as to extract more sugar from

¹⁹¹ Letter from William B Smith to William Bisby, Havana, 18th October 1843 (ANC, CM 51/1, p.430).

¹⁹² US Patent no.36,988 25th November 1862 (*Subject-matter index of patents*, 1874); also ANC, RCJF, 207/9312 & 208/9419.

¹⁹³ British Patents 283 and 1119 of 1864.

¹⁹⁴ ANC, ML, 1336.

¹⁹⁵ ANC, GG, 156/7871.

¹⁹⁶ GUABRC, Mirlees Watson order book, UGD 118/2/4/1. British Patent 1773 of 1876.

¹⁹⁷ *El Faro Industrial de la Habana*, 3rd March 1845.

the cane (rather than the more usual triple rolls), it does seem to have been the first example of such a mill in Cuba, and came not out of the engineering company catalogues but from adaptations made by the *maquinista* himself.¹⁹⁸ The invention was designed to make the sugar-making process more efficient. In fact, the four-roll mill used on the 'Triángulo' did not catch on. For all that it would seem to have made the cane crushing more effective, since the crushed cane waste (bagasse) was a useful source of fuel for estates with dwindling wood supplies, extracting more of the cane juice diminished its usability to generate steam.¹⁹⁹ A balance had to be struck between the savings made by higher sugar yield, and the extra cost of fuel. Most advances made in Cuba were directed not simply at increasing production, but combining this with a reduction in the need for what was in short supply: not just fuel, but also workers and water.²⁰⁰

Thus in 1842, the English *maquinista* John Harris, who was residing in Matanzas, invented a simplification of the sugar-making process "applicable in general to any machine of those now in use", which combined the sugar trains with the steam engine in such a way that the steam from the latter could be used in the former, thereby economizing on fuel, material and work.²⁰¹ In 1854, George Bloomfield introduced an apparatus for making use of the bagasse as it came out of the mill in the heating of the sugar trains and pans, without the need for more workers.²⁰²

In 1862, the Belgian *maquinista* Luis Marechal patented a new sugar train that he had himself built on the estate of the Arangos in Palmillas, and which was "giving the best results as can be proved not only by the employees of the estate but also the

¹⁹⁸ ANC, GSC, 1651/82707.

¹⁹⁹ There was another reason. Both three-roll and four-roll mills crush the cane twice - but in the former, the second 'crush' occurs earlier, so making the process more efficient by limiting the degree to which the juice is reabsorbed by the cane. The fuel argument was a double-edged one, since leaving more juice in the bagasse would have taken longer to dry.

²⁰⁰ There is an interesting parallel between technological developments in Cuba, and those in the United States, which also faced problems of labour shortage, and hence high wages. The need to save labour had an important influence on the course taken by developments in North American machinery (H. J. Habakkuk, *American and British Technology in the Nineteenth Century: the search for labour-saving inventions*, Cambridge: Cambridge University Press, 1962). Such experience of North American *maquinistas* (or those of other nationalities who had worked in the United States) in finding labour saving improvements would have made them particularly useful in Cuba. However, since they came from an already relatively high wage environment, this would also have contributed to the still higher wages demanded in the island.

²⁰¹ ANC, ML, 2384, p.25.

²⁰² ANC, IH, 744/12.

general opinion of the district.” Known as the *Tren Económico*, or Economic Train, Marechal boasted that it had the advantage of four economies: an economy of hands (it required just ten slaves to run, compared to the 28 needed for the equivalent four Jamaica trains); an economy of time (it could produce 25% more sugar than a standard Jamaica train); an economy of fuel; and an economy of cost (since its manufacture and installation was 5% less than that of the Jamaica trains).²⁰³

Edward Beanes even designed a new steam engine, which was the toast of Glasgow in 1850:

In constructing this machine, much attention has been paid to the external appearance of the structure. In design, it is not unlike a miniature circular temple, such as are represented in pictures of Eastern life and manners, known as praying temples; and one would be ready to conclude that Mr Beanes, the inventor, had confined himself as much to the exterior graces and symmetrical proportions of his invention as to its utility for the purpose to which it is to be applied.

Patented by Beanes, but built by Neilsons & Co of Glasgow,²⁰⁴ this was due to be installed on an estate belonging to the Conde de Peñalver, “one of the most extensive sugar planters in the island of Cuba”. Beanes accompanied the new engine to superintend its erection himself, and it proved innovative in that it responded to a grave problem faced by many plantations in Cuba, and which had not been fully appreciated previously by the distant engineering companies: “the want of a sufficient supply of water”.

Mr Beanes turned his attention to provide against this want, and the result is the machine in question. So scarce is water throughout the island, that as Mr Beanes informed us, in some places, there is not as much as would suffice to work a steam engine. This new apparatus, by its own action, generates as much water as is necessary for the process of sugar-making.²⁰⁵

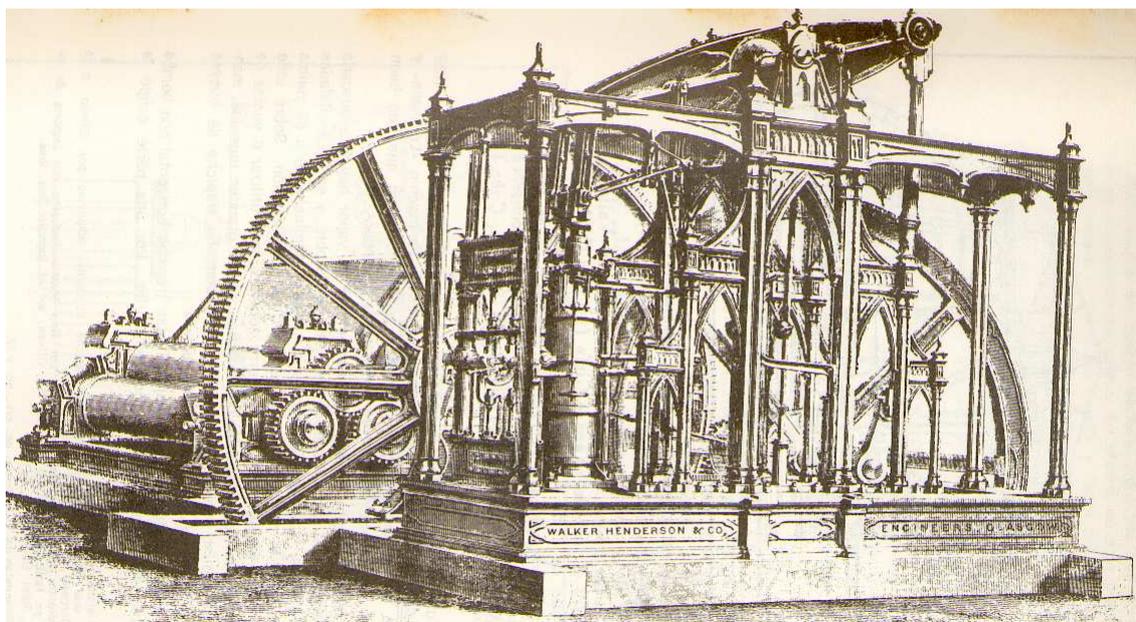
His concern with solving this problem continued, and in 1851 he was granted a ten-year privilege in Cuba for his invention of an apparatus capable of producing sugar without the use of any other water than that used to produce the cane juice.²⁰⁶

²⁰³ ANC, RCJF, 208/9411; ANC, GSC, 1493/59856.

²⁰⁴ While the newspaper article claimed the engine was built by Neilsons, a later drawing of what seems to be the same engine shows the constructors as Walker, Henderson & Co. of Glasgow (Soames, *Treatise on Manufacture of Sugar*, 1872). See Illustration X.

²⁰⁵ *Glasgow Herald*, 11th October 1850, in Kerr, *Practical Treatise*, 1851.

²⁰⁶ *Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana*, Tomo IV (1851), p.82.



X - A 'gothic' steam engine and mill, possibly that designed by Edward Beanes for the Conde de Peñalver in 1850. Here it is attached to a horizontal mill purchased in the 1860s

(Source: Soames, *Treatise on the Manufacture of Sugar*, 1872)

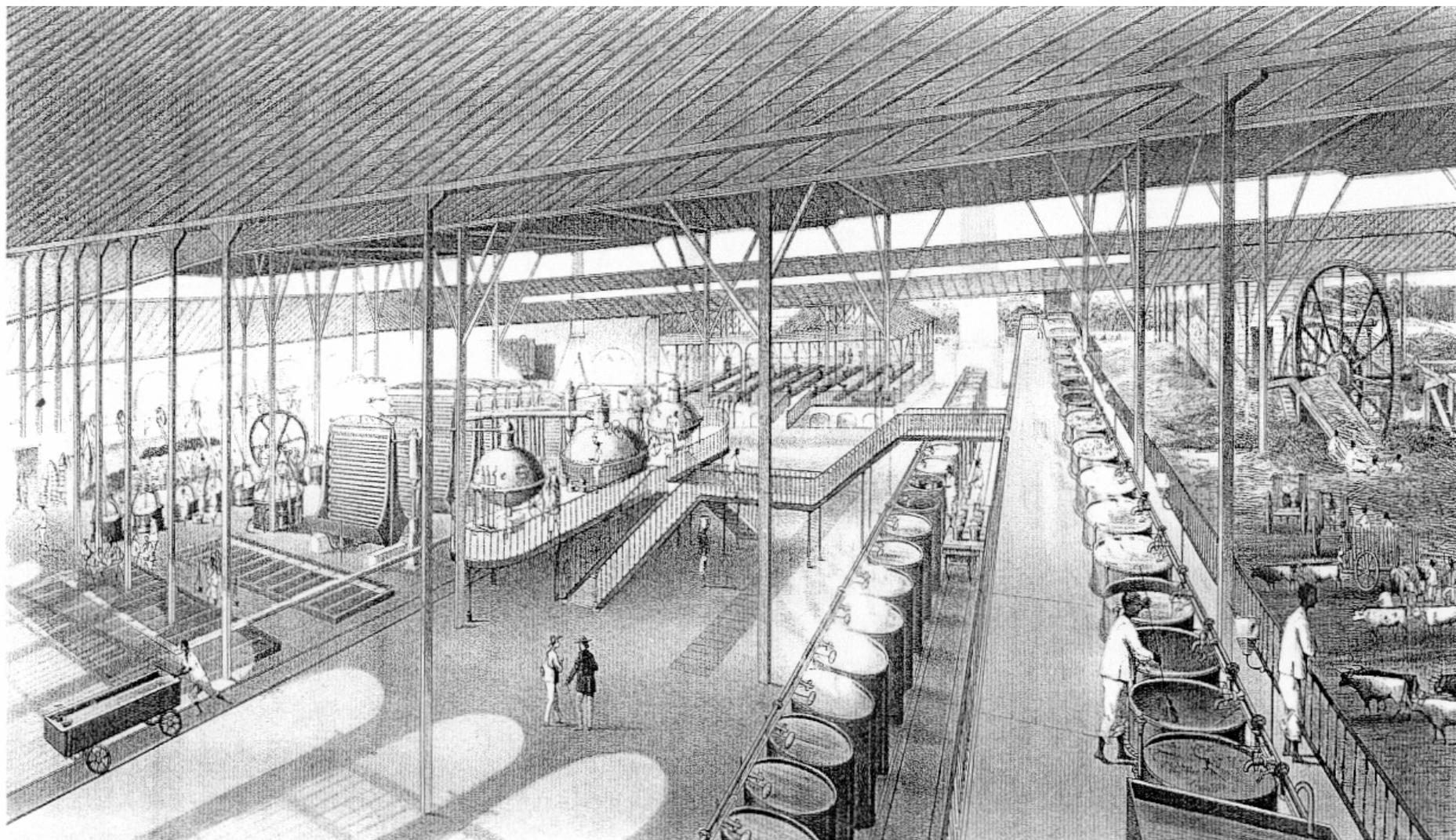
Conclusion - Developing the technological network

From the evidence found, most *maquinistas* do not seem to have settled long term in Cuba. Though they maintained a presence in the island throughout the period, for most this appears to have been a seasonal migration, tied directly to the demands of the sugar harvest. Although there were individuals amongst them who remained all the year round, most of those who worked in sugar mills (and they were the majority of *maquinistas*) arrived some time in the autumn, and left before the intensity of the tropical summer. Even if the surroundings in which they found themselves were sufficiently appealing to keep some of them on the island, for most this was simply a job, and it made more sense for them to leave once that job was done, and return whence they came to enjoy the benefits of their inflated salaries.

Yet they did not simply do this. Their journeys into and out of Cuba came to form a new network binding Cuba into dependent relationships with the leading industrial powers. When they travelled back to the United States or Britain, they did not merely live it up for a few months, as some contemporary commentators suggested. They acted as a conduit both for the needs of the Cuban planters, and for

the foreign engineering companies. This position enabled some of them to establish influential positions for themselves, not unlike the foreign merchants who controlled the influx of foreign capital into the island. In the case of the *maquinistas*, technology and technological developments were what they had power over in the Cuban context. Not only were they needed to run the machines, they came to be needed to acquire new machines, or repair existing ones. With the Cuban sugar industry, and hence the island's wealth, increasingly dependent upon this technology, this was no small part they played.

But this part was more significant still. By applying their skills and intelligence to the improvement of the machinery and processes that were being introduced into the island, not only did they contribute to the technological development of Cuba, they enabled the development of this technology along paths determined by the real needs and problems experienced in the island. These were indispensable aliens: their seasonal migration ironically tying them closer to the island. But for all that the *maquinistas* and Cuba came to depend upon one another (the former for their livelihood and social advancement, the other for its development), the embrace was far from being a friendly one.



XI - Inside the 'Flor de Cuba' sugar mill (c.1857)
(Source: Cantero, *Los ingenios*, 1857)

CHAPTER FIVE
CONTRADICTION IDENTITIES AND HEGEMONY:
THE RELATIONSHIP OF *MAQUINISTAS* WITH CUBAN SOCIETY

Three interrelated transnational networks that tied mid-nineteenth century Cuba into a global community have already been described: commercial, migratory, and technological. A fourth network tied the island into a different set of relations. Cuba continued to be a Spanish colony, and it was through the colonial network that administrative and military power was exerted over the island. This was driven by the need for the old metropolis to extract capital from its prized Antillean possession in the form of tax revenues. In Cuba itself, different loci of power, partly circumscribed by the transnational networks, combined to define the ways in which capital was produced, secured and accumulated.

This did not occur impersonally, but through the wielding of this power by a number of interrelated (though at times conflicting) dominant groups. Labour (free, enslaved and indentured) was exploited to produce wealth for the owners of the productive forces: the plantations and other industries. These depended upon the commercial activities of merchants, both to transform their produce into commodities, and hence financial capital, and for the importation of goods to ensure both their comfort, and the reproduction and development of the production process. They were also reliant upon the securing of sufficient labour to work for them. This gave importance to those who controlled the inflow of migrants, principally those in chains from Africa, but also indentured labourers from China and the Yucatan. Even free migrants did not always arrive in Cuba of their own accord, but did so through the agency of contractors and promoters of migration.

Control over the means of production, distribution and knowledge was also of great importance in defining power. With sugar production becoming increasingly industrialised, and dependent upon technological advances, not only the planters who nominally owned the machinery, but also those who held the privileges for its introduction were in a position to accumulate capital. The same held for those who controlled the means of transport by which the produce could be moved first to the ports (railways), and then to outside markets (shipping lines). Meanwhile, those with

scientific, medical or legal training were in a position to control access to knowledge that was crucial to the modernisation of Cuban society and its economy. The colonial network that tied Cuba politically and militarily into a waning Spanish empire ensured that state power was exerted not by those who lorded over the generation of wealth, but by Spanish government and army officials, whose role it was not just to maintain the conditions for the peaceful generation of capital on the part of other dominant elements, but to siphon off a proportion of this to feed the imperial system (both officially, through duties and taxes, and unofficially through the notoriously corrupt practices of the colonial officials).

Gramsci described hegemony as a “moving equilibrium”, in which power, and the coalitions of forces that wield this power, are not fixed, but are in the continual process of being won and maintained.¹ The hegemonic class that ruled Cuba was an uneasy coalition of dominant groups, containing within itself contradictions that became tried to breaking point by the end of the century, contributing to the development of the wars for independence from Spain. During the mid-nineteenth century, while these underlying tensions were ever present and led to some influential Creoles entering into active dissidence, self-interest encouraged mutual accommodation by the political and economic elites. Spanish officials accepted the relatively free development of the Cuban economy, since this seemed to be generating much wealth that they could tap into; while the producers of that wealth welcomed the political and social control and order that the Spanish appeared to guarantee.

While mid-nineteenth century Cuba was formed out of the various forms of structural power indicated above,² these manifested themselves at every level of society through the complex divisions of identity control. This chapter highlights several ways in which those living in Cuba in this period were excluded from power and divided one from another. At the same time, it was through various coalescences between these multiple identities that common causes were found, and intersectional

¹ See Stuart Hall & Tony Jefferson, *Resistance through Rituals: Youth Subcultures in Post-War Britain*, London: Routledge, 1990.

² ‘Structural power’: “the power manifest in relationships that not only operates within settings and domains but also organizes and orchestrates the settings themselves, and that specifies the direction and distribution of energy flows” (Eric R. Wolf, *Envisioning Power: Ideologies of Dominance and Crisis*, Berkeley, Los Angeles & London: University of California Press, 1999, p.5). In other words, the power that is exerted through, and contested over, capital in its various forms, and which define the organising characteristics of a given society, its economy, politics and culture.

class identities developed. A number of categories of identity provided different, though closely interrelated, fractures within Cuban society, defined by, and to the benefit of, the hegemonic class. By positioning the *maquinistas* within this identity matrix, their relationship with Cuban society can be observed and analysed. This is done by firstly revealing the contradictions between how they perceived themselves fitting in, and how they were perceived by others. Secondly, by demonstrating how they experienced a contradiction in social identity. They were hegemonic in that they were free, white and male, and excluded in that they were foreign, working class, non-Spanish speaking, and often not Catholic. Their aspirational tendencies led many of them to assert the one, in an attempt to overcome the negative effects of the other. This led to a third consequence of their encounter with Cuban society: the social alliances that they came to make. It is argued that there was a tendency for them to display common cause with this class, rather than to develop relations of solidarity with other excluded sections of society.

Complex identities and contradictions of perception

Power was not merely exerted through political and economic control and domination. To be effective, and to protect and reproduce the wealth and influence that the dominant groups were accumulating, it was necessary for this control to be wielded socially and culturally. This occurred through the assertion of a hegemonic identity, through which the members of the dominant groups as a class were able to define their difference from others in society, and hence exclude them from power.³ Seven interrelated categories of identity can be seen to have had such a function: juridical status, race, class, gender, nationality, religion and language.

It was through the intersection of these that an individual's position in Cuban society was perceived – both by themselves and by others. Possession of elements of the hegemonic identity bestowed social power at every level of society. Even within the ruling class, tensions were present because the Creole elite was defined as inferior by the Spanish, by virtue of national origins – though in every other respect they were alike. Similarly, in the urban workshops there existed an internal hierarchy drawn in part on racial lines, with whites holding higher status and rank, followed by free

³ See, for example: Carreras, *Contradicciones de clases*; Barcia, *Burguesía esclavista*; Allahar, *Class, Politics and Sugar*.

mulattos, then blacks, and with slaves at the bottom (themselves distinguished as either Cuban, *creole*, or African born, *bozal*). As an official report observed in 1846:

All trades and mechanical arts ...employ ...black and mulatto slaves, and it is not uncommon to see workrooms in which only the master is white and four or five journeymen, slaves of the owner, or rented under the same condition.⁴

Social identity did not only provide the basis for divisions and tensions between groups. It also formed the basis for the establishment of social alliances. The most obvious one is that of the ruling class itself, which during quite a long period covered up the identity and power contradictions that existed between the dominant groups, enabling these to mutually benefit from the wealth that Cuba was generating. They were able to do this by asserting the points they held in common, giving them greater importance than those that divided them. The same can be observed to a certain extent within the Cuban working class. For all that Cuba was dominated by a white/non-white divide, hardened by the continuation of a slave system, from which white workers often benefited, the Cuban working class was multi-racial and engaged in struggles tending to bring white and non-white workers together, at the same time as they were being torn apart. An official report made in Cienfuegos remarked how “the white proletariat treats the colored class on a completely equal footing”.⁵ Those in power may have sought to harden racial divisions, and so prevent such cross-race class solidarity emerging, but the realities of working life prevented this from ever being entirely successful. A progressively minded planter commented in 1843:

White mechanics and coloured mechanics, when employed in work together, live together and treat each other as men of one colour; sleep in the same room, eat at the same table, both free coloured, slaves & whites. This fact is under my eye, and is to be seen every where. No white mechanic dares scorn at ...a mechanic of colour because of his colour – at work, and at church, we are all the sons of Abraham!⁶

The fact that the governing authorities in Cuba went out of their way to pass racially-divisive legislation is testimony to the perceived danger of such unity occurring.⁷

⁴ Official report on the 1846 Census of Cuba (in Casanovas, *Bread, or Bullets!*, p.41).

⁵ Official report, Cienfuegos (1860), in Casanovas, *Bread, or Bullets!*, p.62.

⁶ Letter from José del Castillo to J. H. Hinton, ‘Sugar Estate’, 13th December 1843 (RH, BFASS, C 15/4).

⁷ Casanovas, *Bread, or Bullets!*, p.50.

Social identity is not just about whom we believe ourselves to be, it is also about how others see us in relationship to themselves. It forms the language of our interaction with others, the points of similarity and difference that define our position within society, the groups (and, by extension, classes) that we come to form a part of, and the lines of demarcation we draw between us and ours, and those we consider to be distinct.⁸ This is both complex and fluid, since it emerges from the intersection of a number of different ways of defining identity, in which the circumstances of changing societal divisions and conflicts determine how we portray ourselves, and how others portray us.⁹ In situations in which two groups or classes come from the same context, they may find themselves staring across an identity divide which nevertheless entails an agreement on how each is defined. In mid-nineteenth century Cuba, while the free and the enslaved were in radically opposed circumstances, there was little doubt in the minds of either that this was defining their respective identities. Though slavery was being eroded and contested, there were clear lines drawn that could not be ignored.

Such clarity is not always the case. Perceptions of what identity is often differ according to perspective. We see ourselves differently from how others see us. In Cuba, Irish railway labourers considered themselves to be free workers (which, juridically, they were); however, they worked for bosses who clearly treated them as though they were slaves, to the extent of inflicting upon them punishments usually reserved for the latter. White Cubans distinguished themselves from all non-whites, but then mulattos also often distinguished themselves from blacks, accentuating their racial connection with the white society that was excluding them.¹⁰ The migrant *maquinistas*, coming as they did with rather different identity concerns and definitions from those that dominated Cuba, showed contradictions in perception, which greatly affected their interaction with Cuban society.

⁸ See, for instance: R. Barth, *Ethnic Groups and Boundaries: The Social Organisation of Cultural Difference*, Norway: Universitetsforlaget, 1969.

⁹ See Balibar & Wallerstein, *Ambiguous Identities*; Cohen, *Fuzzy Frontiers of Identity*; Stasiulis & Yuval-Davis, *Unsettling Settler Societies*.

¹⁰ With his theory of 'somatic distance', Harry Hoetink (*The Two Variants in Caribbean Race Relations: A Contribution to the Sociology of Segmented Societies*, London: Oxford University Press, 1967) has shown how "segmented societies are characterized by varying degrees of difference subjectively experienced between the dominant somatic norm image [those physical characteristics considered to be ideal] and the physical appearance of different groups in society" (Gert Oostindie, 'Introduction: Ethnicity, as ever?', in Gert Oostindie (ed.), *Ethnicity in the Caribbean: Essays in honor of Harry Hoetink*, London & Basingstoke: Macmillan, 1996, p.6). Since different societies perceive this 'somatic distance' in different ways, the presence of migrant populations can bring uncomfortable situations and misunderstandings.

Juridical status

Slavery continued to be of central importance to Cuban society in the mid-nineteenth century, and the distinction between being enslaved or free was fundamental to social status.¹¹ Most, if not all, inhabitants of Cuba were in some way involved: either they were slaves, or they were owners of slaves. In 1841, one Cuban wrote to the British and Foreign Anti-Slavery Society warning of the effect that agitation for abolition would have:

Our own population will rise as one man, because the poorest has at least one slave to lose. The free people of colour, themselves the owners of slaves, will lend us their assistance and even the very slaves themselves if they do not consent may be compelled to act as our instrument in our just defence.¹²

This is confirmed by many contemporary commentators. One of the most important pieces of legislation governing the running of mid-nineteenth century Cuba, the Slave Code, confirms how this free/slave division had preference over those of socio-economic class, race or other categories of status and power:

Any individual of whatever class, color, and condition he may be is authorized to arrest any slave if he is met outside of the house or lands of his master.¹³

The *maquinistas* entered this complex racial milieu with their own racial identity and perceptions. This was something that was itself very much in flux in the mid-nineteenth century. The 1830s and 40s was a period in which working class politics and culture, at least in Europe, was generally optimistic about racial brother or sisterhood,¹⁴ with the abolition movement, for all its middle class posturing, gathering mass support from workers acutely aware of the parallels between their plight as 'wage slaves', and those of African slaves on the New World plantations.¹⁵ This was the time of Chartism in Britain, and intense political developments in France, culminating in the 1848 revolution. Although some of the North American *maquinistas* arrived in Cuba from the slave South, most originally came from the North Eastern

¹¹ Knight, *Slave Society in Cuba*; Torres-Cuevas & Reyes, *Esclavitud y sociedad*.

¹² Letter from 'un Habanero' to the Committee of the British & Foreign Anti-Slavery Society, Havana, 1st December 1841 (RH, BFASS, G77).

¹³ Slave Code of 1842, translated from 'Bando de gobernación y policía de la isla de Cuba' (Havana, 1844), pp.59-68, in Paquette, *Sugar is Made with Blood*, pp.267-72.

¹⁴ Catherine Hall, *Civilising Subjects*, p.48.

¹⁵ See Blackburn, *Overthrow of Colonial Slavery*.

industrial cities, in particular Boston, Philadelphia and New York, which were at the heart of the North American anti-slavery movement. Many of those arriving in Cuba in this earlier period, although they were manifestly not slaves in the Cuban context, but radically distinguished from them, would not themselves have recognised this as a clear identity separating them from the black slaves they found themselves working amongst – at least initially.

However, the very success of the anti-slavery movement in the British colonies may have generated the conditions for a change in this earlier racial solidarity:

The battle against slavery might have been won, but the war against racism had been lost. Indeed, it was emancipation which provoked the rise of new ways of categorising racial difference, for it raised the spectre of black peoples as free and equal.¹⁶

As the mid-nineteenth century progressed, public expressions of white racial superiority became more commonplace, exemplified by Thomas Carlyle, whose *Occasional Discourse* originally appeared in 1849 as being on *the Negro Question*, but had become the *Nigger Question*, by 1853.¹⁷ It was this explicitly racist intervention that did much “to undermine the empathy that exists between the black figure and his implied audience”.¹⁸ In the case of the British, first the Sepoy Rebellion in India in 1857, followed by the Maori Wars of 1861-65 and the Morant Bay Rebellion in Jamaica in 1865 served to fix an idea in the minds of many of the dangerous racial other.¹⁹ Although “the bulk of the articulate working-class” in Britain “defended the Negro cause” in opposition to Eyre’s brutal repression in Jamaica,²⁰ the *maquinistas* can hardly fail to have been influenced by this shift in racial opinion.²¹ In the case of the North Americans, despite the anti-racist rhetoric of the Civil War, while this brought emancipation it did little to remove the underlying racial divisions of North American society, and served to create the conditions whereby whites felt a more pressing need to assert their superiority, as occurred in Britain following emancipation.²² As a result, *maquinistas* arriving later in the period are likely to have had a much more clearly defined sense of their difference from the slaves, and hence have experienced less

¹⁶ Catherine Hall, *Civilising Subjects*, p.48.

¹⁷ Thomas Carlyle, *Occasional Discourse on the Nigger Questions*, London: Thomas Bosworth, 1853.

¹⁸ Gikandi, *Maps of Englishness*, p.62.

¹⁹ Catherine Hall, *Civilising Subjects*, p.24.

²⁰ Bernard Semmel, ‘The Issue of “Race” in the British Reaction to the Morant Bay Uprising of 1865’, *Caribbean Studies*, 2:3 (October 1962), p.15.

²¹ Hyslop, ‘The Imperial Working Class Makes Itself “White”’.

²² See Roediger, *Wages of Whiteness*; and *Towards Abolition of Whiteness*.

discrepancy between their self-perception and the identity thrust upon them by Cuban society.

Race

To some, nineteenth century Cuba seems to have appeared to be racially very mixed. A foreign traveller at the time remarked:

There is no distinction in people's dress ... Here the frock coat is used by the butcher and the count, the black and the white.²³

There was no geographical separation of the races, with urban neighbourhoods showing a remarkable mix of people of all manner of social and racial condition:

There were markets, streets, fairs, cockpit fights, and churches, where slaves, indentured Chinese labourers, free blacks, indentured apprentices, soldiers, white creoles, and Spaniards socialized and exchanged information.²⁴

However, such a view is surprising, since Cuban society was dominated by profound racial divisions, in which colour of skin was a stronger determiner of social status than was socio-economic class. Power and exclusion were heavily colour-coded, and everyone in Cuba was racialized in one way or another.²⁵ Black and white may have inhabited the same urban space, but the rules governing them assured that they remained socially segregated, with white taking precedence over black on all occasions. To be not just pale skinned, but genetically 'white' (that is, descended entirely from European stock) automatically gave one preference over anyone with traces of African (or more generally non-European) descent. This was highlighted in the Havana Municipal Ordinances:

When two persons meet in the street, the one walking on the left will give way, unless they are of different race; in that case the colored race will always give way to the white, under a penalty ranging from one to three pesos.²⁶

The division was not a straightforward bipolar one. In common with the rest of the Hispanic and Lusophone Americas, race was not as clear-cut a category as it was in

²³ Contemporary traveller, quoted in Casanovas, *Bread, or Bullets!*, p.57.

²⁴ Casanovas, *Bread, or Bullets!*, p.57.

²⁵ See Pedro Pérez Sarduy & Jean Stubbs (eds.), *Afro Cuba, an Anthology of Cuban Writing on Race, Politics and Culture*, Melbourne: Latin American Bureau, 1993; and Pérez Sarduy & Stubbs, *Afro-Cuban Voices*.

²⁶ Article 42, Ordenanzas Municipales de la Habana (1855), translated in Casanovas, *Bread, or Bullets!*, p.63.

Anglophone societies.²⁷ Rather, it existed on a spectrum of shades between black and white, marking the various degrees of *mestizaje*, or racial mixture.²⁸ The closer to the white end someone was, the more privileged their position within Cuban society, while proximity to the black end signified higher levels of discrimination. Since all those in the hegemonic class would have been considered racially white, it might be useful here to consider the important division as “that between ‘white’ and ‘other’”, rather than black and white.²⁹ This division hardened during the mid-nineteenth century, accentuated by white fear of a non-white demographic majority, and the ever present potential for a racially-defined uprising, given the increasingly precarious continuation of the slave system.³⁰ As a Cuban abolitionist commented:

The natural antipathy between the coloured and white classes, will grow deeper and deeper – a great social evil. The unpleasant feeling of insecurity in the heart of the whites, will have a fatal effect on the lot of slaves, and on coloured people in general, such as we had never experienced.³¹

While the skin colour of the foreign *maquinistas* would have been described as ‘white’, where they came from such a clear cut racial identity was not necessarily applied to the working class. For example, in Britain the “working class ...was marginal to the symbolic formation of whiteness and, sometimes, ...actively excluded from it”.³² During the mid-nineteenth century, there was a tendency for elite discourses, in particular in Britain, to portray blacks and workers in very similar terms.³³ Just as earlier migrant *maquinistas* would not immediately have affirmed their juridical status as a central part of their identity, so too the hard racial divisions they encountered in Cuba, which ostensibly divided them from many of those they found themselves working with, would not have necessarily been how they defined themselves.

²⁷ Hoetink, *Two Variants*, 1967.

²⁸ Stubbs, ‘Race, Gender, National Identity’; Franklin W. Knight, in Frank McGlyn & Seymour Drescher (eds.), *The Meaning of Freedom: economics, culture and politics after slavery*, Pittsburgh: University of Pittsburgh Press, 1992.

²⁹ Sidney Mintz, ‘Ethnic Difference, Plantation Sameness’, in Oostindie, *Ethnicity in the Caribbean*, p.42.

³⁰ Knight, *Slave Society in Cuba*; and Paquette, *Sugar is Made with Blood*.

³¹ Letter from José del Castillo to John Scoble, Havana, 7th February 1844 (RH, BFASS, C 15/9).

³² Bonnett, ‘How Working Class Became White’, p.316.

³³ Tim Barringer, ‘Images of otherness and the visual production of difference: race and labour in illustrated texts, 1850-1865’, in Shearer West (ed.), *The Victorians and Race*, Brookfield Vermont: Ashgate, 1996.

However, as the century progressed this exclusion from 'whiteness' gave way to a gradual adoption of this identity:

As the chasm of class identities apparent in the Victorian period was narrowed, the marginalization of the working class from whiteness became untenable. ...[R]acial and national identities once centred on the elite become available to the masses. These identities were also able to be adapted by the working class.³⁴

Since the *maquinistas* were members of the so-called 'labour aristocracy', and foremost in the assertion of working class 'respectability', they were probably amongst the first to adopt most clearly a sense of themselves as being 'white'. The more that a particular group of workers may have sought to assert their higher status within their class, the more likely they were to take on the increasingly racialized discourse of the nineteenth century by which to do so. Hence British workers internalised a racial distinction between them and the Irish, who were increasingly depicted as non-, or at least not fully, white.³⁵ Similarly, highly skilled workers were likely to colour their view of those who were unskilled or semi-skilled. This was a process that was well underway amongst North American workers, for whom "the language of ethnicity came to submerge the language of class".³⁶ Perhaps partly as a result of this, immigrant workers in the United States showed a rapid shift in their racial perceptions. Frederick Douglass observed in 1853 that:

The Irish, who, at home, readily sympathize with the oppressed everywhere, are instantly taught when they step upon our soil to hate and despise the Negro.³⁷

Just as the initial contradiction in perception as to juridical status and its importance to identity formation shifted through the mid-nineteenth century, this was closely tied to perceptions of racial identity. *Maquinistas* arriving in Cuba in the 1860s would have felt a lot more comfortable and familiar with the identity of Free and White, by which others saw them there, than those who arrived in the 1840s.

³⁴ Bonnett, 'How Working Class Became White', p.329.

³⁵ Alastair Bonnett, 'Who was white? The disappearance of non-European white identities and the formation of European racial whiteness', *Ethnic and Racial Studies*, 21:6 (1998), p.1045.

³⁶ Bonnett, 'How the British Working Class', p.317. On the importance of racial division in the formation of the US working class, see Roediger, *Wages of Whiteness*; and *Towards Abolition of Whiteness*.

³⁷ Frederick Douglass, 10th May 1853 (in Ignatiev, *How Irish Became White*).

Class

In a society that was still built upon the institution of slavery, even those who had succeeded in freeing themselves from bondage could not be allowed to participate on equal terms.³⁸ As Julio Le Riverend has observed, “in a basically slave society the free worker tends not to remain as such”.³⁹ The boundary between the two statuses was especially blurred amongst those involved in manual labour or skilled trades, which were considered by many native whites to be “so much base and dishonourable drudgery”.⁴⁰ As a result, slaves and free labourers “performed the same work and often shared the same social existence in the urban centers”.⁴¹ When combined with the racial hierarchy that dominated society and culture, this generally led to a racial division of occupations. While this was by no means hard and fast, there was a definite tendency towards the lower skilled and worse paid jobs going to Afro-Cubans, while higher skilled trades were overwhelmingly white.⁴² Thus, in Havana while 58% of masons and 57% of stonecutters were black or mulatto, 82% of blacksmiths and silversmiths and 62% of carpenters were white.⁴³

Many white migrant workers were engaged in occupations that might more normally have been filled by blacks, and this affected the identity thrust upon them by the Cuban authorities, and society generally. Many of the Irish working in Cuba were there as navvies building the railways. In 1859, the Irish labourer John Powers was killed while working at Ceiba Mocha:

[He] died of unheard of Barbarities inflicted upon him whilst he was confined in ‘the stocks’ by a person who acted under the orders of the Spanish authority.⁴⁴

Such treatment, differing little from that imposed on black slaves, was far from an isolated incident:

It is reported that more than one of the labourers have been killed or have died in consequence of the blows inflicted on them by the

³⁸ See Mary Turner (ed.), *From Chattel Slaves to Wage Slaves: the Dynamics of Labour Bargaining in the Americas*, London, Kingston & Bloomington, Indiana: James Currey, Ian Randle & Indiana University Press, 1995.

³⁹ Le Riverend, *Historia económica*, p.158.

⁴⁰ Julio Caro Baroja, ‘Honour & sham: a historical account of several conflicts’, in Peristiany (ed.), *Honour and Shame* (quoted by Martínez-Alier, *Marriage, Class and Colour*, p.85).

⁴¹ Herbert S. Klein, *Slavery in the Americas: a comparative study of Virginia and Cuba*, Chicago: University of Chicago Press, 1967, p.195.

⁴² Casanovas, *Bread, or Bullets!*, p.42.

⁴³ Klein, *Slavery in the Americas*, p.203.

⁴⁴ Letter from Crawford to Captain General, Havana, 26th March 1859 (FO 313/54).

soldiers or whatever else the armed men are who assume to themselves the right of inflicting upon the labourers the most cruel punishments with their swords and clubs. The poor men being first placed in the stock, and so rendered entirely incapable of any resistance.⁴⁵

Migrant workers arriving in Cuba in the mid-nineteenth century from the European and North American industrial centres found themselves in a very different class context from that from which they came. Although the *maquinistas* formed part of a developing skilled working class elite, they nevertheless came from societies in which class-consciousness was relatively well developed.⁴⁶ Theirs was a trade that was one of the first to be unionised, and which was at the forefront of many of the class struggles of the period.⁴⁷ The situation was somewhat different in Cuba, where the effects of the slave system and of racial and national divisions, tied to repressive state policies, retarded the development of a clear working class identity. Whereas this was a category of fundamental importance to the migrants for defining themselves and others, for Cuban society it was largely subordinated to those of juridical status, race and nation. It was these that provided the definition for the establishment of such popular organisations as existed. Although there is some evidence of solidarity developing on class lines, this was generally difficult to achieve, and the *maquinistas*, who would have defined themselves more clearly in terms of labour than of skin colour, found themselves in contradiction to the prevailing social codes.⁴⁸

Gender

While all the foreign *maquinistas* in Cuba were male, since women play a leading role in the maintenance of ethnic cultures and boundaries,⁴⁹ and “gender relations are important boundary markers between one ethnic group and another”,⁵⁰ the question of the sexual relations brought with, or formed by, the *maquinistas* is of crucial importance to understanding how their identities were formed, maintained, or changed in the

⁴⁵ Letter from Crawford to Captain General, Havana, 9th May 1859 (FO 313/54).

⁴⁶ Thompson, *Making of English Working Class*; Belchem, *Industrialization and Working Class*.

⁴⁷ Crossick, *Artisan Elite*.

⁴⁸ Joan Casanovas, ‘Slavery, the Labour Movement and Spanish Colonialism in Cuba, 1850-1890’, *International Review of Social History*, 40 (1995), pp.367-82.

⁴⁹ Steve Fenton, *Ethnicity: Racism, Class and Culture*, London: Macmillan, 1999, p.57. Much work has been done on this in the Caribbean. See in particular the contributions to Mohammed & Shepherd, *Gender in Caribbean Development*; Shepherd, Brereton & Bailey, *Engendering History*; and Mahommed, ‘Rethinking Caribbean Difference’.

⁵⁰ Floya Anthias, ‘Rethinking Social Divisions: Some Notes Towards a Theoretical Framework’, *The Sociological Review*, 46:3 (August 1998), p.528.

experience. It is clear that foreigners in the island did not share many of the social codes relating to gender behaviour and relations. Foreign women (white or otherwise) were not as controlled in their actions as were Cuban women. A North American visitor to Havana observed that:

A woman of respectability is scarcely ever seen walking in the streets, unless she is a foreigner, or of the lower class, such as sellers of fruit, etc.... Cuban etiquette says that a lady must not be seen on the streets except in a vehicle, and only Americans, English and other foreigners disregard the rule.⁵¹

However, the position of such women was not to be envied. They may have been able to ignore some of the rules for feminine behaviour, but they also seem to have been excluded from participation in Cuban society.⁵²

The ordering of gender relations was used as a means of exerting control over excluded groups. The Slave Code not only ordered the working lives of slaves, but every other aspect of their lives too, including relationships between the sexes:

Masters shall take great care to construct for unmarried slaves spacious dwellings in a dry and ventilated area, with separation of the two sexes, well closed and secured with key, in which a light shall be kept burning all night. Where means permit, they shall have a separate dwelling for each married couple.

Although much of the Slave Code was observed more in the breach than the observance, there was an attempt to “avoid the illicit contact of both sexes and encourage marriages”.⁵³ It was not just enslaved blacks that were so controlled. Restrictions on sexual interaction were also imposed upon white society:

A lover calling on his lady does not enter the house, but stands or sits outside the window and talks or sings to her there until he is accepted by the Father or Mother, and then cannot meet her or go out with her unless in Company with a third person.⁵⁴

Power, at least in the public arena, was monopolised by men, to the exclusion of women. The restrictions imposed on the latter did not apply in the same way to men, who were permitted quite considerable sexual licence, so long as they did not flout the established mores too openly. “Thousands ...are strangers to a place of worship,”

⁵¹ Ballou, *Due South*, 1851, quoted in Pérez, *Slaves, Sugar, Colonial Society*, pp.30-1.

⁵² Martínez-Fernández, *Fighting Slavery*, p.66.

⁵³ Slave Code of 1842, translated from ‘Bando de gobernación y policía de la isla de Cuba’ (Havana, 1844), pp.59-68 (in Paquette, *Sugar is Made with Blood*, pp.267-72).

⁵⁴ Herring, *Diary*.

commented Madden, “but who live all their lives in scandalous concubinage, denying with insolent audacity the necessity of consecrating the union they have made by any religious ceremony”.⁵⁵ Villaverde’s *Cecilia Valdés*, with its story of cross-race sexual relationships, is evocative of the age. Cecilia, who was the illegitimate daughter of a wealthy white landowner and a free coloured woman who was herself the result of a similar liaison, also falls in love with a young elite white. Although she could pass herself off as being white herself, she continued to be defined as coloured by the strict blood codes in operation, and therefore not marriageable material for her lover. He married a young woman from his own social and racial class, but fully with the intention of continuing his relationship with Cecilia, as his kept mistress.⁵⁶ While in the case of Cecilia Valdés all turns to tragedy by the discovery that they are in fact half brother and sister, such undercover libertinage was commonplace.⁵⁷

The *maquinistas* cannot have failed to be affected by the illicit sexual practices in which, as men in a male-dominated society, they were able to participate, and those who arrived unaccompanied were able to enjoy considerable freedom. A certain sexual freedom may have been possible prior to migration, despite the strict moral codes of the mid-Victorian age. Edward Snell, an English journeyman engineer working in Bath and Bristol, described a journey he made in the company of a young woman he had just met on the platform:

In going through the tunnels the engine fellow set the confounded screeching whistle a going which so terrified my fair companion that I was obliged to put my arm around her waist to comfort her and being in total darkness there could be no harm in giving her a kiss or two but the tunnel was so confoundedly long at Brislington that by Jove I could hardly make a hundred last all the way through.⁵⁸

One young British *maquinista*, working on a plantation near Santiago de Cuba, had a few days leave from the estate, and went to El Cobre, “where it would appear he had fallen in love with a Spanish Girl”:

Having paid her a visit and not finding his suite [sic] responded to as he desired, he drew a pocket pistol and fired it off, wounding himself

⁵⁵ Madden, *Island of Cuba*, 1849, p.105.

⁵⁶ Villaverde, *Cecilia Valdés* (1839-82).

⁵⁷ See Martínez-Alier, *Marriage, Class and Colour*.

⁵⁸ Diary of Edward Snell, in Cattell, ‘Edward Snell’s Diary’, p.119.

on the left breast with two swan shot, a quantity of which he had loaded the pistol with, for want of a bullet.⁵⁹

John Bullen, a millwright from Bath, died in Puentes Grandes near Havana in 1841, at which time he was living with María del Pilar Sánchez, “in that sort of quasi-matrimonial condition, peculiar of slave holding countries”.⁶⁰ Charles Shudwick, an engineer in the foundry at Regla, “had lived for many years with a mulato woman who accompanied him from place to place, and who was with him when he died.” Shudwick left her as sole beneficiary to his estate: around \$600 or \$700, and a wooden house that he himself had built at Batabanó.⁶¹

For a migrant worker, without the emotional ties of a wife who accompanied him (either because he was unmarried, or because his wife was not present in Cuba), it would have been very easy to transgress the local moral codes. Michael Henry Richards, who worked for the Consolidated Copper Mining Company at El Cobre, did just that when he fell in love with a local woman, leading to the couple being accused by the ecclesiastical authorities of *amancebamiento*, or concubinage.⁶² Although at first it seemed to the British representatives that the problem was that they had been cohabiting outside of wedlock (a transgression that was understandable to them),⁶³ it seems that the offence was actually far subtler. Richards had been seen visiting the home of his lover rather more openly than would be normally accepted in polite Cuban company. He protested the blamelessness of this, “on the plea of a strong regard for the family”. Meanwhile, his mistress went to great lengths to repel the charge (a heinous one in mid-nineteenth century Cuba, at least amongst whites), “with all the energy of her injured innocence”.⁶⁴

Even being formally married did not prevent foreign *maquinistas* from enjoying great freedom if their wives had been left behind. Although Samuel Evans eventually invited his wife to join him, this was only after she had gone to great lengths to try to look for him. He had not only failed to provide her with proper subsistence back in Britain, but also had not maintained communication with her. All she knew was that

⁵⁹ Letter from James Forbes to Crawford, Santiago de Cuba, 8th June 1851 (PRO, FO 453/7).

⁶⁰ Letter from Turnbull to Palmerston, Havana, 21st August 1841 (PRO, FO 72/888, Case 6).

⁶¹ Letter from Crawford to Earl of Clarendon, Havana, 2nd May 1853 (PRO, FO 72/830, No.19).

⁶² Letter from James Forbes to Crawford, Santiago de Cuba, 13th November 1853 (PRO, FO 453/7).

⁶³ Letter from Forbes to Governor Medinilla, Santiago de Cuba, 14th November 1853 (PRO, FO 453/7).

⁶⁴ Letter from Forbes to Crawford, Santiago de Cuba, 3rd December 1853 (PRO, FO 453/7).

he was living somewhere between Villa Clara and Cienfuegos.⁶⁵ Another abandoned wife, Eliza Whitehorn of London, also sought the British government's assistance in obtaining support money from her *maquinista* husband, who had just disappeared into Cuba.⁶⁶

I believe he never intends remittance [of] the support unless some means be made to make him do so ...He has almost broken my heart.⁶⁷

There is little evidence that other *maquinistas* made much attempt to bring their families over to them, despite living for relatively long periods of time in Cuba.

Nationality

To be 'British', 'North American' or 'French' in the mid-nineteenth century was not simply to carry an officially defined name. Although there may have been common interests amongst them that cut across national divides, the national labels that the *maquinistas* carried accompanied perceived ethnic differences. A British machine maker from Salford, Thomas Marsden, demonstrated this in 1841:

I dare say that it is from that prudence which generally operates upon the Englishman, and makes him more studious and more thoughtful; the French are lighter and more volatile; they do not think much of the morrow; they think more of the present day; but the English look a little into the future; and I think that is the great cause of the difference between the French workman and ours.⁶⁸

Such perceptions were highly subjective, but they would have coloured the perception of identity and difference carried by the migrant *maquinistas*. A machinist from Manchester, who had been working for some time in a New York workshop, declared that the Americans were not "generally as steady and persevering in their work as the English". He claimed "you will not find one American in 20 that will stick to work".⁶⁹ This national bias was seen quite the other way round by Alfred Cruger (the chief engineer of the Havana-Güines railroad, himself a North American), who called for a revolution in the workforce, replacing British workers with Americans because the latter were more sober, regular and punctual.⁷⁰

⁶⁵ Letter from Crawford to Malmesbury, Havana, 30th April 1858 (PRO, FO 72/944, No.27).

⁶⁶ Letter from Crawford to Clarendon, Havana, 13th June 1853 (PRO, FO 72/830, No.24).

⁶⁷ Letter from Eliza Whitehorn to British Consul at Havana, London, 16th November 1852 (PRO, FO 72/830, No.24).

⁶⁸ Evidence given by Thomas Marsden (machine maker), 11th March 1841 (PP 1841 (1) vii, p.94).

⁶⁹ Evidence given by James Cox (machinist), 18th March 1841 (PP 1841 (1) vii, p.135).

⁷⁰ Report of Cruger, 17th June 1838 (ANC, RCJF, 132/6453).

But the national and ethnic differences amongst the *maquinistas* were not a simple British/American/French divide. These national definitions are themselves open to deconstruction. Thus, a migrant from the North Eastern industrial centres of the United States may have had quite a different sense of identity from one who came from the slave plantation South. In the case of the 'British', "there is no one national identity - rather competing national identities jostle with each other in a struggle for dominance".⁷¹

[T]here is an important need to underscore the multiplicity of Britishness, for while the English proper might perhaps take their identity for granted, those who existed in the margins of this identity - the Scots, the Welsh, and the Irish - could only be integrated into the emerging discourse of conquest and imperial expansion through the invention of a British identity.⁷²

Those who could be described as 'British' migrants were in fact a heterogeneous group coming from all over the United Kingdom: they were English, Scottish, Welsh, Irish and Cornish.

Cuba was also divided along national and ethnic lines. Amongst slaves, those who were Cuban-born (*criollos*) were generally considered to be superior to the *bozales* recently arrived from Africa, and between the two came those born into slavery in other colonies but imported into the island. Similarly, it was not sufficient simply to be white. Those who came from Spain itself were considered superior to those who were native born, and hence they dominated the political administration, military and commerce, to the effective exclusion of the Cubans. The divide was not a clean one, but one that was itself intersected by class as well as race. A white Spanish peasant was neither socially nor culturally superior to a white Cuban landowner; and while he may have been economically beneath a free coloured professional, he would have had powers over the latter defined not by the country of his birth, but by the colour of his skin. Yet the national divide was ever present, and was at the heart of the simmering discontent amongst many Cubans (regardless of race or class) against the Spanish colonisers.

⁷¹ Catherine Hall, 'Missionary Stories', p.240.

⁷² Gikandi, *Maps of Englishness*, p.29. Also, Linda Colley, *Britons: Forging the Nation*, New Haven: Yale University Press, 1992.

While black foreigners were generally treated little differently from all other blacks in Cuba (except on such occasions, as in 1844, when the authorities felt it necessary to expel them from the island), white, non-Spanish migrants did not fit comfortably into Cuba's national divisions, but rather sat outside of them – their integration into Cuban society coming not through their insertion into the *peninsular-criollo* dichotomy, but through their engagement with different social sections along class, race or other socio-cultural lines. They were outsiders, seen as distinct by virtue of having come from elsewhere, and as such could be seen as forming another 'national' group (albeit a transnational one) alongside the Cubans and the Spanish, interacting with, yet remaining distinct from, both of these.

Many of the foreign *maquinistas* felt themselves to be different from the rest of Cuban society, and not really to belong. In 1844, standing accused of involvement in organising a plot for an uprising, Henry Elkins told his interrogators that as far as he was concerned, they could name whom they liked to defend him, "as I am a stranger".⁷³ "I am here a foreigner who has lived isolated in the country with few relationships".⁷⁴

Language

Much of this isolation was the result of language. Elkins declared that "I know but very little ...Spanish",⁷⁵ and needed an interpreter for his interrogation.⁷⁶ Daniel Downing professed to "understand Spanish but imperfectly".⁷⁷

I can't speak scarcely a word of Spanish except sufficient to get along with the operation [sic] of cain [sic] grinding with the mayoral and negroes.⁷⁸

Whether or not someone was a Spanish speaker greatly affected their ability to participate fully in Cuban society, and interrelate with others. All the migrant *maquinistas* had other mother tongues, and this led to their having problems communicating with those around them, and even may have led them to experience exclusion and discrimination. It would also have greatly affected their perception of

⁷³ Letter from Elkins to Joseph T Crawford, Havana, 12th December 1844 (PRO, FO 72/664, No.52).

⁷⁴ Letter from Elkins to President of Comisión Militar, Matanzas, 15th July 1844 (ANC, CM 51/1, pp.393-400).

⁷⁵ Letter from Elkins to Crawford, Havana, 12th December 1844 (PRO, FO 72/664, No.52).

⁷⁶ ANC, CM 51/1, pp.394-396.

⁷⁷ Statement made by Daniel Downing, 28th September 1844 (PRO, FO 72/664, No.41).

⁷⁸ Statement made by Daniel Downing (PRO, FO 72/664, No.12).

other categories of identity, for much of which language plays an important role – leading to misunderstandings of significance that may have had a profound effect upon their ability fully to interact with others.

However, change was experienced during the period in some areas, as English began to become the *de facto* language of commerce and technology, thanks to the dominance of these transnational networks, and the incursion into the Cuban hegemonic class of English-speaking migrants. The district around Holguín, in the East, could “boast of more English-speaking society than many other foreign places, of equal size and note”.⁷⁹ Similarly, with the influx of sugar-related migrants, English was becoming much more widely spoken around Matanzas.⁸⁰

There were parts of Cuba where English-speaking migrants would not have felt entirely out of place. Those *maquinistas* who were working in urban workshops, such as the rail yards, found themselves in closer proximity to others who shared their language. But those who worked on the plantations were much more isolated. Often the only person at all close to them with whom they could fully communicate would be a fellow migrant on a neighbouring plantation. While often this person would also be a *maquinista*, or other skilled worker, the necessity for human communication broke across class or status divides, leading to relationships being established purely on the basis of shared language or nationality. The Scottish *maquinista*, James Mathers, was working on the ‘El Destino’ sugar plantation, in Corralillo, near Cárdenas, in the late 1850s. He appears to have been in contact with just one friend, the Scottish doctor on a nearby plantation.⁸¹

Religion

Cuba was officially Roman Catholic, to the attempted exclusion of all other religions. As a result, those who were not Catholic were excluded (unless they lied about their religion, which seems to have been very common practice at this time). The tension that this produced was affirmed by a North American politician, Zachariah Chandler, in 1859:

⁷⁹ John Glenville Taylor, *The United States and Cuba: Eight Years of Change and Travel*, London, 1851.

⁸⁰ Ballou, *Due South*, 1851, p.47.

⁸¹ ANC, GSC, 1032/35719.

The Catholic religion rules supreme in the Island of Cuba; no other religion is tolerated. Even the rites of a Christian burial are denied to a Protestant upon that island. The people are superstitious and vicious; and they are bigots as well. They are devout Catholics. The Catholic Church is true to Spain; the Catholic Church is true to despotism.⁸²

Although a non-catholic burial ground was established in Havana in 1841, the separation served to highlight the division.⁸³ Similarly, Protestants in Santiago de Cuba were buried “in an open space near the shore at Punta Blanca”, where their “bones and bodies” were “desecrated by crabs, dogs and pigs”. This was “a usage so repugnant to common decency that the evil cured itself”. However, in 1861, attempts were made to once again deny Protestants the right to be buried on the same ground as Roman Catholics. The local British representatives were vociferous in their opposition:

I am aware that this is a very delicate matter to broach with the authorities, but it is also a subject in which Englishmen both at home & abroad feel very keenly, and I should hope that after a quarter of a century’s experience of civilized toleration, we are not again to see our country men buried like dogs.⁸⁴

Such problems were keenly felt by the mineworkers at El Cobre. Most of the foreigners amongst them came from Cornwall where “nearly all such of the labouring class ...as have any regard for religion are either members of one or other of the Methodist Societies or are in the habit of attending their meetings”.⁸⁵ Yet, while there were two Catholic churches in Cobre, the establishment of a Protestant chapel was strictly forbidden.⁸⁶ They found a way around this, though. William and James Whitburn, both of them *maquinistas* in the mines, were devout Wesleyan Methodists:

and they have been accustomed to assemble with their fellow members and others for the purpose of divine worship in the forenoon and evening of the first day of the week (Sunday) and also in the evening of some other day in the week – the religious performance in such meeting consisting of prayer, preaching and singing.⁸⁷

⁸² Senator Zacahriah Chandler, *Congressional Globe*, Vol.28, Pt.2, p.1081 (1859) (in Martínez-Fernández, *Torn Between Empires*, p.54).

⁸³ Letter from Gerónimo Valdés to Turnbull, Havana, 18th November 1841 (PRO, FO 72/586, No.88). For a general account of the religious tensions between the Catholic authorities and Protestant residents in Havana, see Martínez-Fernández, *Fighting Slavery*, pp.105-19.

⁸⁴ Letter from Acting Consul Beattie to Crawford, Santiago de Cuba, 16th October 1861 (PRO, FO 453/9).

⁸⁵ Letter from Jenkins to William Leckie, 8th October 1836 (RIC, HJ/1/17).

⁸⁶ Herring, *Diary*.

⁸⁷ Letter from Jenkins to William Leckie, 8th October 1836 (RIC, HJ/1/17).

In 1839, a letter was sent to the Foreign Secretary, Viscount Palmerston, from “the British residents at Havannah [sic] being desirous to have the benefit of the services of an English Chaplain at that place”. The assistance of the British government was looked for in seeking to pressure the Spanish government in Madrid to make an exception, and to grant them “permission to perform Divine worship according to the forms of the Church of England”. As specifically British a request as this might sound, the attached list of contributors to the fund to pay for such a chaplain included generous donations from a broad cross-section of the middle class, non-Spanish population of Havana. British names are joined with Germans, French and North Americans (including the United States Consul, Nicholas Trist) in raising an annual subscription of \$1,575.⁸⁸ It would seem that the beleaguered foreign Protestant community thought it best to group together under a single flag of convenience in order to achieve their ends.⁸⁹ Despite their efforts, however, they were not successful in this. Two years later, the then British Consul, David Turnbull, was still raising an “earnest prayer” on behalf “of the British and other protestant inhabitants of ...Havana, for the intercession of Her Majesty’s Government, in obtaining for them the consolations of their religion”. He variously offered to read services himself in his own house, or to set aside a room in the planned Guardian’s house at the “new Burying Ground”, where Protestant funeral services might be held.⁹⁰

Theoretically, there should have been no foreign Protestants residing in Cuba. The rules attached to the granting of letters of domicile (by which migrants were able to remain for longer than three months) explicitly stated that “every body is required to prove that they are of the Roman Catholic Religion”. Yet “the majority of British subjects who are residing in these Colonies of Spain are not Roman Catholics”.⁹¹

[T]hose Protestant young men – young men of principle & character, are called upon by the authorities at the Havana to declare themselves, upon oath, to be what they are not – Roman Catholics, by

⁸⁸ Letter from J. D. Powles to Viscount Palmerston, Freemans Court, 19th June 1839 (PRO, FO 72/538).

⁸⁹ On the general tensions existing between Protestants and Catholics in the region during this period, see Luis Martínez-Fernández, *Protestantism and Political Conflict in the Nineteenth-Century Hispanic Caribbean*, New Brunswick, NJ: Rutgers University Press, 2002.

⁹⁰ David Turnbull to Earl of Aberdeen, Havana, 18th Nov. 1841 (PRO, FO 72/586)

⁹¹ Letter from Joseph Crawford to Palmerston, Havana, 22nd January 1852 (PRO, FO 72/886).

religious profession, in order to obtain their Carta de domicilio and thereby become qualified and entitled to remain in the colony.⁹²

Those who were unable to provide definite proof of their Catholicism on arrival had a 'note' attached to their domicile letter, and given two years in which to provide relevant documents (baptism records, a statement by a parish priest, or such like). In practice, this was very rarely enforced, and only in circumstances in which the authorities needed an excuse to expel the migrant from the island. However, as a result Protestant migrants lived with the continual threat that one day this might be done.⁹³ In 1854, the merchant B. Douglas, based in Manzanillo, was given three months to leave the island when he "inadvertently stated he was a Protestant".⁹⁴ Nevertheless, many Protestants applied for and were granted domicile, and unless they subsequently came into conflict with the authorities they rarely seem to have been required to provide proof at a later date.

For all that religion might appear to have been an important source of a distinct identity, in practice it was of superficial importance for many. Although there were those who protested about the insistence on Catholicism ("no question more deeply wounds the feeling of England as a people, than this unliberal exaction of Spain"⁹⁵) it seems to have been more of an issue for the middle class migrants than for skilled workers such as the *maquinistas*. The names on the list for the establishment of a Protestant chaplain in Havana were almost exclusively foreign merchants;⁹⁶ and despite the complaints made by the Consuls about the need for declarations of Catholicism, the *maquinistas* showed few qualms in doing so in their applications for domicile, regardless of what their religio-cultural background really was. Besides, the assertion of a uniform Protestant identity disguises the likely existence amongst such groups of genuine Catholics. For them religion, far from being a means of identifying themselves as different from the surrounding society, would have assisted them in identifying with it – particularly given the anti-Catholic bigotry that was common in both Britain and North America at this time. Unfortunately it is difficult, if not impossible, to separate out the *maquinistas* according to religious identity.

⁹² Letter from D. R. Clark to Palmerston, 26th January 1850 (PRO, FO 72/885).

⁹³ Letter from Crawford to Palmerston, Havana, 22nd January 1852 (PRO, FO 72/886); Archivo Provincial de Cienfuegos (APC), Actas Capitulares, Cienfuegos, Libro II, Folio 99v, 4th August 1843.

⁹⁴ Letter from Forbes to Crawford, Santiago de Cuba, 1st May 1854 (PRO, FO 453/7).

⁹⁵ Letter from Forbes to Crawford, Santiago de Cuba, 1st May 1854 (PRO, FO 453/7).

⁹⁶ Letter from J. D. Powles to Viscount Palmerston, Freemans Court, 19th June 1839 (PRO, FO 72/538).

Geoffrey Crossick, writing on skilled workers in mid-nineteenth century London, found that religion was actually of little importance to artisans at this time.⁹⁷ Although the journeyman engineer, Edward Snell, was nominally a nonconformist protestant, his “attitude to religion was somewhat ambiguous”:

He seems not to have been a regular at any one Chapel and on occasions was content to attend both Anglican and Roman Catholic Churches. ...[I]n common with many other Dissenters ...Snell was very much a free-thinker and liberal, and as such was open to new ideas.⁹⁸

The readiness with which the nominally Protestant amongst the *maquinistas* made false declarations in order to secure their residency is a sign of the ambivalence with which they actually treated religion.

They were not alone in this. Mid-nineteenth century Cuban society, despite the superficial appearance of strict Catholicism, was on the whole remarkably irreligious, above all in the principal sugar growing districts where most of the *maquinistas* found themselves based. Anthony Trollope, who visited Cuba in the 1850s, commented that “Roman catholic worship is at a lower ebb in Cuba than almost anywhere else”.⁹⁹ Joseph Crawford, the British Consul General based in Havana, likewise remarked:

In proportion to the increase of slavery, it would seem, there has grown up a disregard for Religion and Christianity in these lands. The publick [sic] temper and opinions as regards slavery and the slaves is almost pagan.¹⁰⁰

The legal regulations governing slavery specified that slaveholders had a duty to “instruct his slaves in the principles of the Holy Roman Catholic Apostolic Religion”, to baptise them, and provide them with religious instruction and the possibility of religious worship.¹⁰¹ However, it was widely reported that “on no sugar plantation or

⁹⁷ Crossick, *Artisan Elite*, p.140.

⁹⁸ Cattell, ‘Edward Snell’s Diary’, pp.119-20.

⁹⁹ Anthony Trollope, *The West Indies and the Spanish Main*, London, 1859 (cited in Martínez-Alier, *Marriage, Class and Colour*, p.55).

¹⁰⁰ Letter from Crawford to Aberdeen, Havana, 23rd October 1843 (PRO, FO 84/463, No.35).

¹⁰¹ Slave Code of 1842, translated from ‘Bando de gobernación’ (1844), pp.59-68, in Paquette, *Sugar is Made with Blood*, pp.267-72; also Slave Regulations 1844, translated from José María Zamora y Coronado, *Biblioteca de legislación ultramarina en forma de diccionario alfabético*, Madrid, 1844-49, Vol. 3, pp.139-141, in Paquette, *Sugar is Made with Blood*, pp.273-4.

coffee estate do they receive the least moral or religious instruction".¹⁰² This was a state of affairs not only affecting the slaves, but the population in general:

There are many men and many women in the island of Cuba, who, since they were baptised, have never entered a church until they went there to get married.¹⁰³

This was all the more likely to be the case in the rural sugar plantation districts, where it was common for there not to be a church or priest within twenty miles.¹⁰⁴ One particularly religious Cuban planter expressed his growing horror at this situation:

Will you believe that in a village about a league hence, from this episcopal see there was no church; not even a chapel, untill [sic] lately, when two pious ladies, raised a fund and caused a small chapel to be built there – a village of about two thousand souls, where children seven years old are to be found without baptism? In a catholic country!!¹⁰⁵

Rearticulating identity

In Cuba, the contradictions that existed between the perception of the *maquinistas* by others, and their perception of themselves, coupled with the visible advantages that they possessed as a result of their specific occupation, offered them flexibility in the articulation of their identities. Although they were free, white, male, non-Spanish speaking, foreign, often non-Catholic workers, they could not be reduced even to such a complex description. Though neither they nor Cuban society would have disagreed with this characterisation, what each meant by this, and the importance attached to each element, was very different. If they were to establish a position for themselves within Cuban society that went beyond the limited terms of their employment, then they would need to assert a more clearly defined position within the matrix of identity relations.

This entailed a certain rearticulation of their attitude to gender relations, and of their own masculinity. By effectively breaking their dependence upon liaisons external to Cuba, they were able to engage more fully on Cuban terms. This also occurred with language. Though shifts in the island itself moved the terrain in the direction of the

¹⁰² Unsigned report on slavery in Cuba (RH, BFASS, G78).

¹⁰³ Madden, *The Island of Cuba*, 1849, p.105.

¹⁰⁴ Remarks on the new Cuban slave code, by R. R. Madden, 1842 (RH, BFASS, G78).

¹⁰⁵ Letter from José del Castillo to John Scoble, Havana, 5th October 1843 (RH, BFASS, C 15/3).

English speakers amongst them, time spent in the island would have increased the ability of the *maquinistas* to communicate effectively in Spanish, so neutralising this as a point of exclusion for them. Religion, important as it nominally was in mid-nineteenth century Cuba, has already been shown to be, for many, little more than a cultural front that could be relatively easily assumed. Important as Catholicism was for the official, hegemonic culture, at a popular level it was increasingly lacking in relevance, and the *maquinistas* seem to have paid this scant regard.

There are three principal areas in which the *maquinistas* underwent very important rearticulations of their identity, by which they defined a position for themselves within Cuban society. Firstly, though they came from different nationalities, they assumed the common ‘foreign’ label by which they were identified locally. Secondly, because of the strong aspirational tendencies that they demonstrated, rather than assert a clear working class identity on Cuban terms, they took advantage of their position to attempt to define themselves as masters. Thirdly, they became overtly White.

Becoming foreign

In 1841, a British engineer and machinist, Grenville Withers, remarked that those in his trade who had migrated “got higher wages; but the love of country is always predominant”.¹⁰⁶ There is much research that would seem to confirm that national identity is strengthened through migration to other countries.¹⁰⁷ Roger Knight has shown how the spread of technology and science in the sugar industry had the effect of hardening ethnic boundaries. Looking at Javan sugar plantations, there appears to be a clear division asserted by a migrant European hierarchy through its exclusion of the local population.¹⁰⁸ Josefina Plá saw how British migrants in Paraguay, many of them machinists, tended to entertain amongst themselves, and not with the natives.¹⁰⁹ Steve Fenton uses the example of the Chinese in Jamaica, who became dependent upon one another “for support and exchange”, so increasing their collective identity.¹¹⁰ Joan Bak,

¹⁰⁶ Evidence given by Grenville Withers (engineer & machinist), 10th March 1841 (PP 1841 (1) vii, p.59).

¹⁰⁷ George Shepperson, ‘Scotland: the world perspective’, in *The Diaspora of the British*, collected seminar papers no.31, London: Institute of Commonwealth Studies, 1982, p.51.

¹⁰⁸ Roger Knight, ‘Sugar, Technology, and Colonial Encounters: Refashioning the Industry in the Netherlands Indies, 1800-1942’, *Journal of Historical Sociology*, 12:3 (1999), p.235.

¹⁰⁹ Plá, *British in Paraguay*, p.185.

¹¹⁰ Fenton, *Ethnicity*, p.30.

in looking at the labour movement in Brazil, observed how the working class there often split on ethnic lines, with workers seeing bosses of their own ethnic group as allies, capable of providing protection from the authorities.¹¹¹ R Darrell Meadows, researching the transatlantic networks of French migration, defines these as “ties of supports and co-operation, which often crossed the bounds of political affiliations, racial groups, or social classes”.¹¹²

An exaggerated sense of patriotism seems to have been maintained by at least some British migrants in Cuba, though whether or not the *maquinistas* were amongst them is not clear. Upon hearing the news of the assassination attempt against Queen Victoria in 1842, “the most lively sensations broke forth” amongst British residents in Havana, who made a collective address to the Queen.¹¹³ On the death of Prince Albert two decades later, a similar feeling was expressed by the British Consul, Joseph Crawford:

The sad intelligence of the death of His Royal Highness the Prince Consort ...has filled all classes of Her Majesty’s subjects here with the most profound grief, and their consolation is in the assurance which is given ...that Her Majesty, though overwhelmed with grief, has borne this great bereavement with calmness, and has not suffered in health.¹¹⁴

Though Crawford’s claim to speak on behalf of all the British, rather than just the narrow social class to which he belonged, should be treated with some scepticism, there were cases in which a sense of national identity had direct consequences for working class migrants such as the *maquinistas*. There appear to have been feelings of a shared identity amongst migrants of the same nationality, rallying round to protect, or at least assist, one another in times of difficulty, as during the *Escalera* crisis when the British community in Matanzas came out in support of the British prisoners, providing them with assistance, food and representation.¹¹⁵

Henry Elkins, imprisoned in 1844, seemed to feel assured that his motherland would defend him in his plight. This appears to have been common amongst the

¹¹¹ Bak, ‘Class, Ethnicity and Gender’, p.102.

¹¹² Meadows, ‘Engineering Exile’, p.72.

¹¹³ Letter from Crawford to Aberdeen, Havana, 19th July 1842 (PRO, FO 72/609, No.21).

¹¹⁴ Letter from Crawford to Earl Russell, Havana, 21st January 1862 (PRO, FO 72/1041, No.4).

¹¹⁵ PRO, FO 72/664, no.12.

English (if not all the British) abroad. As “an Englishman” wrote in the *New York Herald* in 1853:

England has always been proverbial for the protection she affords her subjects. The Englishman in Milan, in Rome, or in Canton, feels that, though far distant he may be from his native land, he still stands under the protecting arm of his country and his Queen.¹¹⁶

This was not only to be seen amongst the British. The North Americans were also noted for being “imbued with a more than ordinary share of that love of country”.¹¹⁷ However, whereas the British *maquinistas* were making declarations of their hurt national dignity on being imprisoned in 1844, Americans such as Samuel Moford were assuring their interrogators that “it is the character of a Good American to defend the country in which he gains his sustenance”.¹¹⁸ This certainly seems to have been the attitude of the United States consular authorities, who, unlike the vociferous protests of the British, were content to be reassured that their nationals were being treated no differently from any other prisoners.

While such evidence points towards not just the maintenance, but even the intensification in some, of a nationally defined identity, amongst the migrant *maquinistas* there is, at the same time, a visible tendency towards the establishment of a transnational identity. This was partly as a result of their being looked upon indiscriminately as ‘foreigners’ in Cuba. Thus the comments of the Governor of Cienfuegos, who believed that “all Englishmen, Frenchmen and Americans were a set of scoundrells [sic]”, would have helped to blur any national distinctions that migrants from these countries would have felt towards one another.¹¹⁹ It was also partly due both to their common identity as *maquinistas*, and to their coming out of a much broader migratory milieu, in which an individual may have undergone repeated migration, so distancing them from their country of origin. Fernando Klever appears

¹¹⁶ Letter from ‘An Englishman’, *New York Herald*, n.d. (PRO, FO 72/858). Such sentiments, accompanying the rise of the Victorian Empire, had become popularised in the 1850s, following Palmerston’s “*civis Britannicus sum*” (I am a British citizen) speech to Parliament in 1850, in which he adapted the Roman concept that the nation’s citizens could expect to be defended wherever they were in the world, no matter what local laws they may have flouted. See, for example, Denis Judd, *Empire: The British Imperial Experience from 1765 to the Present*, London: Harper Collins, 1996.

¹¹⁷ Letter from David Turnbull to Viscount Palmerston, Havana, 27th January 1841 (PRO, FO 72/584, No.18).

¹¹⁸ Letter from Samuel Moford to President of Comisión Militar, Matanzas, 23rd August 1844 (ANC, CM 51/1, p.247).

¹¹⁹ Letter from Horacio Santiago Nuñez to Crawford, Cienfuegos, 1st August 1843 (ANC, GSC, 849/28588).

to have been a German, born in Russia, who served on an English warship.¹²⁰ Donald McIntosh was born in Scotland, but migrated to New York where he worked for a number of years before obtaining employment in Cuba, leaving his family in the United States.¹²¹ The Irish-born Daniel Downing, in common with many other *maquinistas*, was in the habit of travelling to the United States every year after the grinding season.¹²²

Despite being in a cell with forty others, following his arrest as part of the *Escalera* investigations of 1844, Downing established a relationship with just one other prisoner – the only other foreigner, and *maquinista*, the North American Samuel Moffat.¹²³ At least amongst British and North American *maquinistas* there developed something of a common identity, despite the geopolitical rivalries of their respective governments. This was quickened in 1856, when the British government distanced itself from its migrant workers, with the withdrawal of official support in cases of distress – so weakening what patriotic bond might have previously existed.¹²⁴ Observers in Cuba commented that “a full half of the British subjects here are ready to become American citizens, if they found it convenient”,¹²⁵ and there were *maquinistas* (not just British, but also French and other Europeans) who did just that, succeeding in becoming United States citizens even while they continued to work in Cuba.¹²⁶

There is much evidence to suggest that migrant *maquinistas*, despite the tendency towards the establishment of a transnational identity, nevertheless found it necessary to assume national labels when they found themselves in situations of conflict with the local authorities. When in 1852 William Uren complained of the assault he suffered at the hands of Spanish soldiers, he laid claim to reparations on the basis not simply of his injuries, but for being “an innocent and unoffending British subject”.¹²⁷ Under interrogation in 1844, Henry Elkins declared “that the bad treatment that he had received was intended as an insult to his country”, and that “he would suffer or die

¹²⁰ Letter from William Sim to Crawford, Matanzas, 31st May 1844 (PRO, FO 72/664, No.12).

¹²¹ ANC, CM 51/1, pp.117-120.

¹²² ANC, CM 51/1, pp.319-321.

¹²³ Statement by Daniel Downing, Cárdenas prison, 26th May 1844 (PRO, FO 72/664, No.12).

¹²⁴ Letter from Crawford to Earl of Clarendon, Havana, 25th August 1856 (PRO, FO 72/902, No.51).

¹²⁵ Letter from Kennedy to Palmerston, Havana, 26th December 1850 (PRO, FO 72/771).

¹²⁶ Analysis of the reports on foreign *maquinista* presence in the early 1850s reveals examples of this shift in nationality (AHPM, GPI, 6/87-102).

¹²⁷ Letter from William Uren to Dr Forbes, El Cobre, 26th December 1852 (ANC, FGSC, 857/28957).

like a Briton".¹²⁸ The claims to a particular national identity often reveal more of the need to secure a strong defence on their behalf than the actual perception that the migrants had of themselves. Some laid claim to a British identity, even if they had long since emigrated from Britain and had all but severed their contacts there. Daniel Downing, who was Irish, pleaded from prison: "a British subject throws himself on the government of his country and asks for protection".¹²⁹

Their national origins continued to be something of which the *maquinistas* could also make strategic use of, just as foreign-born merchants tended to do. By virtue of being British, French or North American, they could be supposed to have had privileged access to the manufacturers of those countries. Many became intermediaries between their Cuban employers and the foreign engineering companies. Outside the workplace, too, the fact that they, and other foreign residents, stood outside the Spanish/Cuban divisions at times enabled them to maintain friendly relations with both. Ironically, it was this that may have helped some to play a more integrated part in Cuban society and its history. James Herring, describing his life in Cuba around the start of the Ten Years' War (the first Cuban War of Independence) in 1868, wrote that:

I had the privilege of going from one line to the other carrying two passports and having friends in both parties and occasionally carried letters from some Cuban soldiers to their relatives in Santiago.

On one occasion when he was doing this, he was able to get past the Spanish, who stopped him, without being searched – he was, after all, British, and hence supposedly neutral.¹³⁰

Becoming masters

It has been observed that status-consciousness was at least as important for the mid-Victorian working class as was class-consciousness:¹³¹

There is no place in which class distinctions are more sharply defined, or strongly, or, if need be, violently maintained than in the workshop ...Evil would certainly befall any labourer who tried to assume equality with an artisan ...if ...he added himself unbidden to

¹²⁸ Letter from William Sim to Crawford, Matanzas, 3rd July 1844 (PRO, FO 72/664, No.12).

¹²⁹ Statement made by Daniel Downing, 1844 (PRO, FO 72/64, No.12).

¹³⁰ Herring, *Diary* – although Herring wasn't himself a *maquinista*, but a carpenter in the Cobre mines, his example is relevant to the argument, and its application by extension to the *maquinistas*.

¹³¹ Crossick, *Artisan Elite*, p.107.

a group of the skilled hands of the shop who were just chatting about things in general, or even 'put his oar in' to a conversation that they might be carrying on in his full hearing.¹³²

This was particularly true of engineering workers, who have come to be seen as the archetypal members of a 'labour aristocracy', that increasingly distinguished itself, through significantly higher wages and, by connection, a sense of 'respectability',¹³³ from "the unskilled or unorganized mass which could command only a subsistence or near-subsistence wage".¹³⁴ This led to a tendency in the artisan elite to aspire to better living conditions, moving out of the poor working class neighbourhoods to establish themselves in their own districts.¹³⁵ Contemporary commentators remarked on how "frugal and prudent" machinists and engineers in particular had become,¹³⁶ depositing money in Savings Banks or with benefit societies in an attempt "to provide against the proverbial rainy day".¹³⁷ In Britain, at a time when most workers and their families had to have some recourse to parochial aid, to help them through difficult times, engineering workers "would consider it the greatest indignity that could be offered to them".¹³⁸ This was one of the motivations behind engineering workers becoming one of the first groups to turn to mutual aid, and successfully unionise themselves. One of the principal functions of the engineering trade unions, such as the Amalgamated Society of Engineers (ASE) in Britain, was the local provision of assistance for members forced to tramp the country in search of employment.

For all that engineering workers may have sought to distinguish themselves from the poorer sections of the working class, and lived with the aspiration to establish themselves as masters in their own right, the independence and respectability that they claimed was made firmly on working class terms.¹³⁹ While the mutual societies that they formed may have been exclusive, they served as an example to the rest of their class,¹⁴⁰ for which they at times consciously acted as leaders. The Ten Hours' movement in Britain was spear-headed by the engineering workers, and the formation

¹³² A working man, *Working Men and Women*, London, 1879 (in Crossick, *Artisan Elite*, 1978, p.129).

¹³³ Thompson, *Rise of Respectable Society*, p.204.

¹³⁴ Hobsbawm, *Industry and Empire*, p.161.

¹³⁵ Thompson, *Rise of Respectable Society*, p.182.

¹³⁶ Alexander Galloway (engineer), evidence given to parliamentary enquiry into export of machinery and emigration of artisans, 18th February 1824 (PP, 1824 v. p.26).

¹³⁷ A working man (1879), pp.36-37 (in Crossick, *Artisan Elite*, p.105).

¹³⁸ Galloway, 18th February 1824 (PP, 1824 v, p.26).

¹³⁹ Crossick, *Artisan Elite*, p.138.

¹⁴⁰ Belchem, *Industrialization and Working Class*, p.171.

of the ASE came out of a recognition of the need for more general combination if their interests as workers were to be defended:

[W]e feel confident that the first circumstance which arises of oppression on the part of the employers, or depression in the state of trade, that the weakness of those whose organization is incomplete, or who cannot claim the assistance of their fellow workmen, will be so apparent and disastrous, that they will repent their own isolation, and wish they had, with less prejudice, joined their fellows in Amalgamation.¹⁴¹

Nevertheless, the above statement was made in reaction to sections of engineering workers, in particular steam engine makers, who were resisting the call for working class unity of interest. It is evident that the migrant *maquinistas* were members of a group that was by no means homogeneous, but which contained both conscious members of the industrial working class, alongside those who aspired to raise themselves individually into positions of greater economic and social power, as workshop masters or professional engineers. One contemporary expert on the industry noted in 1841, that the British artisans who migrated to work in the United States:

at first employ themselves either as journeymen or superintendents, and when they lay by money, they set up for themselves, or unite with Americans who have capital, and become head manufacturers.¹⁴²

Although there are many examples of foreign *maquinistas* helping one another find placements in Cuba, petty differences and jealousies, symptomatic of those for whom a sense of class identity has been replaced by an excessive concern for individual status, can be seen to have at the same time divided them. The North American *maquinista*, Henry Cabalier, made the situation faced by Henry Elkins in 1844 considerably worse when he thoughtlessly stated to his interrogators that he considered Elkins to be “a windbag and charlatan”.¹⁴³ Within a year of opening, the Havana-Güines railroad was threatened with closure, in no small part due to the bitter rivalry that had emerged between the two principal *maquinistas*, both of them British,

¹⁴¹ Monthly report of the ASE, August 1851 (MRC, MSS 259/4/14/1), p.57.

¹⁴² Alexander Jones, evidence given to parliamentary enquiry into export of machinery and emigration of artisans, 18th March 1841 (PP 1841 (1) vii, p.211).

¹⁴³ ANC, CM, 51/1, pp.296-297.

Knight and Keating, neither of whom trusted the abilities of the other.¹⁴⁴ An attempt was made to overcome the insurmountable differences between the two by putting them in charge of different locomotives. However, this didn't solve things, "since the seed of the envy and discord is sown amongst the subalterns", with an avalanche of problems emerging around inequalities of pay, the appropriation of tools, "and in an infinity of other incidents".¹⁴⁵ This division was highlighted by the organisation of the house designated for the use of the foreign engineering workers at the Villanueva rail depot. Although the rooms were large, and Knight could have easily fitted all his belongings into a single room, he insisted on occupying one fifth of the house, with the result that several of the other mechanics, subordinate to him, were squashed into a single room. There was also no space in the house for proper eating arrangements, forcing many of them to travel to Cerro or Puentes Grandes everyday in order to eat.¹⁴⁶

It is perhaps ironic that it was this workshop status stratification, in other contexts serving to help tie skilled workers to management and prevent the emergence of a working class identity and resultant class conflict, which was the source of labour problems in this case. It led the chief engineer of the Havana-Güines line, Alfred Cruger, to seek to proletarianize the engineering workers, as a means of establishing order. To do this, he downplayed the skills required for the job:

The operation of a Locomotive, in order to drive it, is so simple, that a man of middling understanding can learn it in 10 or 12 days of observation and practice. All that is needed is to know how to administer the water and the fuel with the necessary regularity.¹⁴⁷

He recommended the young North American *maquinistas* he recruited to replace the fractious, and craft-conscious, British on the basis that they "don't pretend to be anything other than mere machinists, with very low wages".¹⁴⁸

Moreno Fraginalls, in arguing that the continuation of slavery retarded the development of the forces of production in Cuba's sugar industry, asserted that "the slave had no contact with the engine".¹⁴⁹ However, sugar mill *maquinistas*, even when they were the only one employed on an estate, were not expected to do all the work

¹⁴⁴ Report of Cruger, 20th December 1837 (ANC, RCJF, 132/6453).

¹⁴⁵ Report of J. C. Stocker, 27th January 1838 (ANC, RCJF, 132/6453).

¹⁴⁶ Report of Cruger, 10th January 1838 (ANC, RCJF, 132/6453).

¹⁴⁷ Report of Cruger, 20th December 1837 (ANC, RCJF, 132/6453).

¹⁴⁸ Report of Alfred Cruger, 21st May 1838 (ANC, RCJF, 131/6412).

¹⁴⁹ Moreno Fraginalls, *El Ingenio*, Vol.1, p.213.

related to maintenance of the machinery. Although most plantation slaves were employed in unskilled labour in the fields, or mill, on most estates there was an important elite skilled in artisan trades. On the 'Palma' estate, of the 75 adult male slaves, eleven had trades, and two were *maquinistas*: Trinidad and José Criollo.¹⁵⁰ These were held to have a value that was considerably higher than that of those who were unskilled. In 1844, when troops killed seven of Theodore Phinney's slaves and arrested three accused of involvement in a conspiracy, one of these was his engineer/blacksmith, whom he valued at a staggering \$5000¹⁵¹ – twenty times the average price for a male slave at this time.¹⁵² Juan, a slave on the 'Flor de Cuba', was universally known as 'el maquinista' and worked in close relationship with the foreign *maquinista* there.¹⁵³ The artisan slaves, though they were still subject to discipline as were all slaves, they were likely to have remained working alongside the free artisans throughout the year.¹⁵⁴ This made them privileged, and the *maquinistas* more than the rest. Just as the salaried foreign *maquinistas* appeared to consider themselves above their fellow free workers, so too the slave *maquinistas* felt they were different from the rest of the plantation slaves. Esteban Montejo, who later recounted his experiences of life in a nineteenth century sugar mill, reportedly told of how:

The men who worked with those machines were those who were best placed in the mill. They considered themselves better than the rest. They felt repugnance towards the field men. They called the cane cutters ...coarse. They spent their lives criticising them. If they had calluses on their hands, they told them "careful, or you'll hurt me." And they wouldn't hold out their hand to them for anything in the world... They sowed hatred and difference.¹⁵⁵

It was with these slave *maquinistas* that the foreign *maquinistas* most closely worked, and with whom they showed most signs of developing a substantial relationship, even if based on their fundamental inequality of position. Whenever Henry Elkins left the estate, he always felt confident in leaving the steam engine in charge of the slave *maquinista* Juan Lucumí.¹⁵⁶ William Bisby encouraged the slave working with him, Nicolas Criollo, to work well, promising to reward him should he

¹⁵⁰ 'La Palma' Estate Book 2 (BL, HEE, MSS Span c.3). Their shared surname was not an indication of familial relationship, but that both were slaves born in Cuba.

¹⁵¹ Letter from Theodore Phinney to Crawford, Havana, 29th June 1844 (PRO, FO 72/664, No.19).

¹⁵² Bergad, *Cuban Rural Society*, p.203.

¹⁵³ ANC, CM 63/9.

¹⁵⁴ 'La Palma' Estate Book 3 (BL, HEE, MSS Span c.4).

¹⁵⁵ Bernet, *Biografía de cimarrón*, pp.90-1 – my translation.

¹⁵⁶ ANC, CM, 51/1, pp.260-262.

do so, and which he did on one occasion by giving him a new pair of shoes.¹⁵⁷ William Mason on occasions would request his slave *maquinista* Juan to purchase a pig on his behalf from the other slaves.¹⁵⁸ The foreign *maquinistas* would often encourage those working with them to learn the trade well, so that one day they would be able to practise it in their own right.¹⁵⁹ However, the relationship was not all positive and mutually supportive. The salaried *maquinista* was in a position of power over the slave. The same William Mason found it necessary to punish his Juan on a number of occasions for his poor work.¹⁶⁰

The relationship established between the slaves and foreign *maquinistas* was not one of class solidarity. Such identity and common ground as they shared was defined in the terms of the work in which they were together engaged. Free worker and slave, they were both nevertheless '*maquinistas*', but only in the same sense as back in the workshops in the countries from which they came the master and men all belonged to the same trade. It is interesting that these foreign *maquinistas*, in seeking independence through migration, should have found in the Cuban slave plantation the means to build around them a similar workshop culture to that which they had left behind, now reversed with them able to assume the dominant position.

Becoming white

The *maquinistas* would have discovered, as other white migrants to the colonies discovered at this time, that, even if their racial identity at home was slightly suspect, here they were more likely to be clearly defined as 'white', and hence have some claim to elite status whatever they did for their living:

White Englishmen were able to use the power of the colonial stage to disrupt the traditional class relations of their own country and enjoy new forms of direct power over 'subject peoples'. At the same time, as 'imperial men' who moved across these societies, their own identities were ruptured, changed and differently articulated by place.¹⁶¹

¹⁵⁷ ANC, CM, 51/1, pp.432-433.

¹⁵⁸ William Mason, evidence given to Military Commission investigating *Escalera* conspiracy, Matanzas, 11th April 1844 (ANC, CM, 63/9).

¹⁵⁹ ANC, CM, 51/1, pp.84-85.

¹⁶⁰ William Mason, evidence, 11th April 1844 (ANC, CM, 63/9).

¹⁶¹ Catherine Hall, *Civilising Subjects*, p.65.

Thus most such migrants appear to have maintained a distance between themselves and the slaves and free coloured workers with whom they might otherwise have been expected to establish relationships. William Uren, who worked at the El Cobre mines, became the object of violence on the part of a drunken band of Spanish soldiers, who turned their attention on him immediately after running amok amongst the slaves of the mine. However, while the blacks had been “playing in the Tumba and dancing”, Uren was sitting quietly with a friend at his house.¹⁶² Similarly, many of the sugar mill *maquinistas* caught up in the *Escalera* conspiracy trials claimed to have had minimal contact with blacks. Donald McIntosh said that the only blacks he had any kind of relationship with were those he worked with, and although he knew by sight almost all the slaves on the plantation, he had no more relations with them than what was necessary for operating the engine.¹⁶³ Henry Elkins claimed:

that neither in Matanzas or the Havana I did not know neither negroes nor mulattoes ...I never ...had any communication with any coloured people whatsoever for they are people that I am not acquainted with and much less would associate with them, that my company were white people that would rather do me good than harm.¹⁶⁴

He said that he could not conceive “disturbing the public tranquillity and much less associate with people of colour for the destruction of my race”.¹⁶⁵ Similarly Robert Highton had never “treated with any person of colour, nor any slave” in Cuba, though considering he worked on sugar estates this is hard to believe.¹⁶⁶ More believable was the description of John Bettin:

[H]is behaviour was good, without hiding from the blacks under his charge any fault, nor permitting them any kind of confidence, and [I] never saw him visited by any person of colour in the two years that he stayed there.¹⁶⁷

The language used by the *maquinistas* leaves little doubt that they considered themselves to be racially superior to the blacks. Robert Mathers complained that he

¹⁶² Letter from William Uren to Dr Forbes (British Consul), Cobre, 26th December 1852 (ANC, GSC, 857/28957).

¹⁶³ ANC, CM 51/1, pp.117-120.

¹⁶⁴ Letter from Henry Elkins to Joseph T Crawford, Havana, 12th December 1844 (PRO, FO 72/664, No.52).

¹⁶⁵ Letter from Elkins to President of the Comisión Militar, Matanzas, 15th July 1844 (ANC, CM 51/1, pp.393-400).

¹⁶⁶ ANC, CM 51/1, pp.315-317.

¹⁶⁷ Testimony of Juan de la Cruz González (ANC, CM 51/1, p.614), my translation.

was imprisoned on “the mere declaration of a negro”. He expressed his disgust at finding himself locked in the same cell as “a number of negroes”, and that he was forced into “immediate contact with them,” making a clear link between this and “the filth and disagreeable odours” that could “scarcely be imagined” which he was forced to suffer.¹⁶⁸ Robert Highton made it clear that his reasons for bribing his guards to allow him, and other white prisoners, to continue separately to Matanzas was his objection to being kept in a room containing blacks and mulattoes.¹⁶⁹ Likewise, Daniel Downing, who was one of the others with Highton in the above incident, explained that they bribed the guards “for we did not like to be taken through the Town, with the negroe [sic] prisoners.” Downing complained of the conditions in the cell at Matanzas:

The chain gang were put in this room every night, and I have often been awakend [sic] out of my miserable sleep by the negroes feet pushing my head about or some other part of my body there were so many in the room. Some negroes who had been flogged were there, and the smell from their lacerated parts was most dreadful.¹⁷⁰

It was thanks to the testimony of the slave *maquinista* Juan that William Mason was released in 1844, since he was prepared to testify that although Mason had offered to help him escape the plantation should he wish, most of the charges made against Mason were false. However, far from revealing a solidarity between the two, this evidence was believed because Juan asserted the “he feels hatred and ill will towards Mr Mason”.¹⁷¹ Henry Elkins expressed great surprise that he should be accused of complicity in the plot for a slave uprising:

after the blacks on the estate where I live have declared that amongst their plans for uprising they included that of throwing me live into the ...engine, so that I should die through the cruellest of torments.¹⁷²

Other witnesses confirmed that ever since his arrival in Cuba, Elkins had been openly opinionated in favour of whites and against the coloureds. He had even helped in the fight to suppress a slave uprising in 1843.¹⁷³ This, no doubt, was the source of the hostility felt against him by the slaves, and he was not alone. Cavalry Captain Carlos

¹⁶⁸ Statement of Robert Mathers (PRO, FO 72/664, No.12).

¹⁶⁹ Letter from Robert Highton to Crawford, Matanzas, 7th October 1844 (PRO, FO 72/664, No.52).

¹⁷⁰ Statement made by Daniel Downing, 28th September 1844 (PRO, FO 72/664, No.41).

¹⁷¹ Evidence of Juan, 11th April 1844 (ANC, CM 63/9).

¹⁷² Letter from Henry Elkins to President of the Comisión Militar, Matanzas, 15th July 1844 (ANC, CM 51/1, pp.393-400) – my translation.

¹⁷³ Letter from Comandante de Armas to Francisco Yllas, Guamacaro, 9th December 1844 (ANC, CM 51/1, p.679).

Gherria testified that during the Bemba uprising of 1843, he had four foreign operatives, from a number of estates, fighting with him to suppress the rebellion.¹⁷⁴

While not necessarily all *maquinistas* participated in this racial hostility, life on most sugar estates was designed to maintain racial segregation, with the use, or threat, of violence to maintain the security of whites. When Julia Luisa M. Woodruff visited the island in the 1870s, she described a plantation that she was shown around:

That of Santa Sofia numbers about four hundred souls, of whom not more than a dozen or fifteen are contained in white skins; a disproportion which seems to justify, in a measure, the firearms, whips, chains, locks, gratings, etc., which are so prominent a part of its system.¹⁷⁵

It was considered to be quite a normal request when Henry Emerson asked for permission from the Lieutenant Governor for the use of three rifles, three pairs of pistols and three swords on the Palma estate – one of each for each of the three white operatives working there.¹⁷⁶

Racial prejudice was not just directed against the blacks. The mine *maquinista*, Edward Hodge, later wrote:

[T]he negro is infinitely superior as a man to the Chinese. He has known Chinamen to commit suicide on the slightest provocation, and to be equally ready to take the lives of others.

The African slave, according to Hodge, “has many good qualities, he is appreciative of kindness and readily evinces gratitude”. However, for all the compliments, these were the words of a man secure in his own racial superiority. On one occasion he “was rescued from an attack by Chinese, by a negro slave over whom he had the power of practically unlimited punishment, and very possibly may have occasionally ordered him a flogging”.¹⁷⁷ It may be necessary to avoid a monolithic conception of ‘whiteness’, particularly as the racialization of migrant identities became more intense as the century progressed. In particular the North Americans were coming to see everything

¹⁷⁴ ANC, CM 51/1, p.514. Also ANC, CM 51/1, pp.434-5.

¹⁷⁵ Jay, *Winter in Cuba*, 1871, in Pérez, *Slaves, Sugar, Colonial Society*, p.70.

¹⁷⁶ Letter from Emerson to Lieutenant Governor, 16th December 1852 (BL, HEE, MSS Span b.1).

¹⁷⁷ Hodge, *Reminiscences*. Since the Chinese themselves had their own conceptions of whiteness, here is a prime example of the Europeanization of this racial category. See Bonnett, ‘Who was White?’. This was made particularly easy in the Cuban context, since the Chinese who were there came as indentured labourers in near slave conditions. Though not classed as racially ‘black’, they were discriminated against as racially non-white.

South of their mainland as either non-white or primitive.¹⁷⁸ While the whiteness of the Creole and Spanish elite may not have been in question in the mid-nineteenth century, it had become so by the end of the century, when they became included in theories of racial inferiority, which were used as a justification for the United States' occupation of the island from 1898 to 1902. The US Military Governor of Cuba, Leonard Wood, wrote in 1900:

We are dealing with a race ...that has steadily been going down for a hundred years and into which we have got to infuse new life, new principles and new methods of doing things.

It seems that many of the occupying soldiers believed the Cubans to be "a race of ignorant savages".¹⁷⁹ Long before this, Spanish and Creole workers and peasants, swarthy-skinned both naturally and from the sun (as well as probable elements of black ancestry in many), may well have been looked down on not just socially, but also racially by those whose model of 'whiteness' was a fair-skinned one.

In describing the process by which Irish migrants became 'White' in the United States, Noel Ignatiev has remarked:

They came to a society in which color was important in determining social position. It was not a pattern they were familiar with and they bore no responsibility for it; nevertheless, they adapted to it in short order.¹⁸⁰

Jonathan Hyslop has found that skilled, otherwise class-conscious, migrant workers in South Africa (many of them engineering workers) likewise became White, and organised themselves on this basis.¹⁸¹ The same could be said of the foreign *maquinistas* in Cuba. Coming with an already inflated sense of their own importance, from countries in which race was becoming an important discourse in which they (as members of the 'respectable' working class) could hardly have failed to have participated in some way, they found themselves in a society in which race was important to the definition of status. Occupying highly paid, responsible positions, in

¹⁷⁸ See, for example: Reginald Horsman, *Race and Manifest Destiny: The Origins of American Racial Anglo-Saxonism*, Cambridge, Mass. & London: Harvard University Press, 1981; and Matthew Frye Jacobson, *Barbarian Virtues: The United States Encounters Foreign Peoples at Home and Abroad, 1876-1917*, New York: Hill and Wang, 2000.

¹⁷⁹ Letter from Leonard Wood to William McKinley, Havana, 12th April 1900 (cited by Alejandro de la Fuente, 'Myths of Racial Democracy: Cuba, 1900-1912', *Latin American Research Review*, 34:3 (1999), pp.53-4).

¹⁸⁰ Ignatiev, *How the Irish Became White*, p.2.

¹⁸¹ Hyslop, 'Imperial Working Class', pp.398-421.

a sector in which few native whites had hitherto participated, not only were they in close contact with blacks, both free and enslaved, but found themselves with a power over them to which they were unaccustomed. This placed them in a doubly insecure position, racially speaking. On the one hand, status-conscious as they were, they needed to assert their whiteness as a badge that distinguished them from many with whom they worked. On the other hand, while working amongst blacks might have provided a basis for a cross-racial unity of class interest to emerge, in their case it seems to have been more likely to generate racial antagonism (for all the pro-emancipation opinions they might have brought with them). In the small world of the workshop, not only were they masters, but they possessed the very physical distinction from those who worked under them that was so important to the defining of mid-nineteenth century Cuban society as a whole.

Social alliances of the *maquinistas*

What the *maquinistas* were doing was to assume Cuban identity articulations in place of those they brought with them. Since they were, on the whole, highly status-conscious and aspirational, this led them to adopt positions that were more likely to ensure for them a position of respect in Cuban society, and more particularly within the hegemonic class upon whose patronage they depended. As a result, rather than accentuating the elements of their identity which could have tied them closer to other groups excluded from power (by, for example, asserting a working class identity in the face of racial and ethnic differences), they sought out positions of hegemonic identity.¹⁸² This was seen in the development of a workshop culture in which they were able to define themselves as masters – even in those circumstances in which they were, themselves, waged employees. By allowing themselves to become racially White (a process that was anyway underway in the countries from which they came), they were asserting a position of power that penetrated every level of Cuban society, regardless of their actual socio-economic and political power. To assert a foreign identity, for all that this might appear to have been an accentuation of their exclusion, actually represented a defensive measure in the face of the national exclusion that they

¹⁸² It is not necessary to be a part of the ruling class to display elements of the hegemonic identity asserted by that class. As Laclau and Mouffe have written: “[T]he two conditions of a hegemonic articulation are the presence of antagonistic forces and the instability of the frontiers which separate them. Only the presence of a vast area of floating elements and the possibility of their articulation to opposite camps – which implies a constant redefinition of the latter – is what constitutes the terrain permitting us to define a practice as hegemonic” (Ernesto Laclau & Chantal Mouffe, *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics*, London: Verso, 2001, p.136).

all shared. It was an assumption of Cuban definitions of foreignness that were somewhat nation-blind. Since they were all outsiders, it mattered little where precisely they came from – and it was common for the *maquinistas* to be indiscriminately referred to as North Americans or English, whether or not they really were. But it was also an identity that stood outside local Cuban society, by virtue of the increasingly important transnational networks (themselves coming to be dominated by the very countries from which most of the *maquinistas* hailed) that bound the island.

Alliances between individuals and groups are established on the basis of a perceived common identity. Working class movements can only emerge when sufficient workers accept such a definition as defining their relationship with others. Nationalist and ethnic politics arise from the exclusive assertion of a particular national or ethnic identity, privileging these categories above all others. Such ‘imagined communities’ are the result of the need for a common identity, whether deliberately manufactured by elites in order to maintain and extend the power that they already possess, or in reaction to this power by those against whom it is being wielded.¹⁸³ Though they may appear to do so, they do not come from simplifications of our complex identities. They entail an articulation of the intersecting categories in such a way, with such a combination, as to attempt to maximise the strength of a particular group or class. It was such a combination on the part of the ruling class in Cuba that saw the emergence of the particular identity matrix described above. When that ruling alliance fell apart, with the emergence of a Cuban nationalist movement in the late nineteenth century, this itself occurred through a rearticulation of the ways in which, in particular, race, class and nation intersected. Likewise, the manner in which the *maquinistas* in Cuba rearticulated their identities predisposed them to attempt to engage pragmatically with Cuban society through the formation of alliances with the elite groups whose patronage they depended upon.

At times when the *maquinistas* did not feel themselves to be in conflict with the surrounding society and its authorities, they probably felt little need to contemplate what national identity they may have had, nor to use this in defining their relations with others. Daniel Downing expressed disbelief at the accusations made of his speaking ill of the Spanish. He professed he felt nothing of the sort, but quite the

¹⁸³ Anderson, *Imagined Communities*.

reverse, since it was they who allowed him to earn his bread.¹⁸⁴ Other migrants showed similar signs of very normal and unconflicting relations with the local population. The case made against James Joyce of anti-Spanish statements, actually reveals quite the reverse.¹⁸⁵ The occasion that was the cause of his arrest was a dinner he shared with a number of locals, amongst whom he was the only one who was neither Spanish nor Creole. The offending statements were simply a joking response on his part to a quite amicable teasing about the ineffectuality of British power. Far from revealing him to be a vociferous, anti-Spanish, British patriot, the evidence shows him to be interrelating with local society, on a level in which respective national identities were more cause for friendly banter than genuine difference.¹⁸⁶ Such a tendency probably increased with time, at least for the English-speaking migrants, as more Cubans were able to speak English:

The English-language has spread among the natives ...not only among the youth of both sexes in the cities and large towns, but even among men well beyond school age.¹⁸⁷

At the same time, as the *maquinistas* resided for longer in Cuba, they would have become progressively more familiar with the Spanish language. In cases where a *maquinista* was able to communicate more than just basic orders in Spanish, this of course opened up much greater possibilities for overcoming the barrier to full participation in Cuban society, and hence would have helped weaken a sense of exclusive national identity.

There were claims that on “many estates in this Island, ...the English language alone is spoken amongst the slaves”.¹⁸⁸ If this were so, it might have provided a basis by which the white *maquinistas* established common cause with the blacks alongside whom they worked. Leon Ganga, a slave *maquinista* on the estate where Donald McIntosh was employed, declared that of the four foreign *maquinistas* he had worked under, it was with McIntosh that he felt most confident, precisely because he spoke Spanish, and hence “they understood each other very well”.¹⁸⁹

¹⁸⁴ ANC, CM 51/1, pp.386.

¹⁸⁵ James Joyce, although not a *maquinista*, was a migrant who had worked for several years in Cuba – as a ship captain, and, at the time of his arrest, as a logger.

¹⁸⁶ ANC, GSC, 846/28418.

¹⁸⁷ Valentín Caneda, ‘Memoria’, 24th August 1852, in Sedan y Cruzat, *Cuba desde 1850 a 1873* (Madrid, 1873), p.166 – my translation.

¹⁸⁸ Letter from Crawford to Aberdeen, Havana, 19th February 1843 (PRO, FO 84/463, No.1).

¹⁸⁹ ANC, CM 51/1, pp.65-66.

For all that the *maquinistas* may have perceived themselves as white, this did not preclude them establishing cross-racial relations with slaves and other blacks. What were taken as being seditious comments on their part in the early 1840s, and which led to the arrest of some, could simply have been expressions of sympathy on the part of the white *maquinistas* for the conditions in which they were very aware the slaves and other blacks were living. When Gabriel Frion, the free coloured carpenter on the 'Flor de Cuba' estate, commented to the *maquinista*, William Mason, that he now had two slaves (one that he had purchased himself, and the other given to him by the plantation owner), Mason allegedly replied that "he would in no way improve his situation just by having two blacks", and continued by commenting that Frion should support an uprising against the government, to gain equality with the whites. Frion also claimed to have heard Mason talking to the slave *maquinista* about how in North America the coloured people were going to rise up for freedom, and that they should do so too in Cuba.¹⁹⁰ One slave testified that when *maquinistas* came to the estate on which he worked, they would often hand out cigars to the slaves, and many spoke of their eventual freedom.¹⁹¹

Some *maquinistas* were apparently happy to be working alongside slaves. Although William Bisby recognised that "it is very useful that there are slaves for all kinds of work", he professed to prefer working with slaves rather than in the company of whites.¹⁹² Likewise Thomas Clarkson, from the Palma estate, would frequently travel to Sagua la Grande by train, often accompanied by a male slave. This was not simply a case of white master with black servant, since they would often return to the plantation on separate trains.¹⁹³ Others expressed a certain affinity with the racial mixture that surrounded them, and in particular of the cultural freedom of black and mulatto culture in comparison with the constraints of the socially dominant white culture. James Herring kept a diary of his experiences in El Cobre, and described his experience of waking in a Cuban friend's house:

with the door open and my bed surrounded by about a dozen children from 8 to 10 years of age, all in their birthday dress, and they

¹⁹⁰ Gabriel Frion, evidence before the Military Commission into the *Escalera* conspiracy, Matanzas, 11th April 1844 (ANC, CM, 63/9).

¹⁹¹ ANC, CM 51/1, p.68.

¹⁹² ANC, CM 51/1, pp.432-433.

¹⁹³ 'La Palma' Estate Book 4 (BL, HEE, MSS Span c.5).

were of many shades of Color from almost white to jet black. It was a surprise to me to see them in that condition, but later found that slave children and the poorer of the free children seldom wore clothes except on special occasions until they were 10 or 11 years of age, the climate was so warm that they were not really needed, and none of us needed more than two garments except on a dress up occasion.¹⁹⁴

In 1837, Patrick O'Rourke (who died as a result of his brutal imprisonment in 1844, during the *Escalera* investigations), was fined \$8 for having gone against official directives, and taken part in drum playing ("*tocar tambor*") at night with the blacks who were supposed to be under his charge.¹⁹⁵

However, most *maquinistas* appear to have been content to assert their racial superiority, and many of the above examples, while showing friendly instincts towards the slaves and blacks, were clearly paternalistic in attitude. Although there are examples of foreign *maquinistas* establishing close relationships with fellow free workers (as in the case of James Daykin, who attended "the Baptism of the child of a carpenter his friend" in Canasí in 1853¹⁹⁶), there are far more examples of a close relationship emerging between them and the plantation owner. Henry Elkins was supported by the Ventosas, his employers, while he was in prison in 1844. This does not seem to have been purely because the latter were "most anxious to avail again of his services",¹⁹⁷ since they made a point of sending to him a mattress and pillow to make his imprisonment more comfortable (though these were confiscated).¹⁹⁸ Elkins commented that he felt that he had been treated by the plantation owners like one of the family, with one of the Ventosas even acting as godfather for Elkins's young son.¹⁹⁹ The family of another of the foreign *maquinistas* caught up in the *Escalera*, William Mason, appears to have stayed as visitors in the Estate house while present on the plantation where Mason was employed.²⁰⁰ It was common for foreign *maquinistas* to eat their meals, at least on the occasion of special visits to the estate, with the administrator or owner and his family, as was clearly the case on the Agüica, in which a visitor who later wrote about the event described how the rather dour Mr Lanier sat

¹⁹⁴ Herring, *Diary*.

¹⁹⁵ ANC, RCJF, 8/572.

¹⁹⁶ Letter from Crawford to Captain General, Havana, 23rd November 1853 (ANC, GSC, 857/28958).

¹⁹⁷ Letter from Crawford to O'Donnell, Havana, 20th November 1844 (PRO, FO 72/664, No.50).

¹⁹⁸ Letter from Henry Elkins to Joseph T Crawford, Havana, 12th December 1844 (PRO, FO 72/664, No.52).

¹⁹⁹ Letter from Henry Elkins to President of the Comisión Militar, Matanzas, 15th July 1844 (ANC, CM, 51/1, pp.393-400).

²⁰⁰ Evidence of William Mason, 11th April 1844 (ANC, CM, 63/9).

with them at the table, taking much pleasure in describing the estate's machinery in the minutest detail.²⁰¹ Edward Hodge, the Cornish mine engineer, later wrote that:

The writer has received valuable presents from Planters in return for trivial professional service which had been rendered with pleasure during a visit, without any thought of remuneration.²⁰²

Here, the continuing contradiction in perception is apparent. Hodge clearly aspired at being on equal social terms with the Planters he worked for. Yet these, for all that they may have appreciated him, nevertheless continued to treat him as a worker whose services were to be paid for. A contemporary cartoon, from a Cuban satirical newspaper of the 1860s, implies that the *maquinistas* were also ultimately expendable (see Illustration XII). If one should die when his engine explodes, no matter, a replacement can always be found.

While many foreign *maquinistas* may have attempted to develop close relationships with the plantation owners, so long as they continued working in the sugar mill they did not cease to be part of an often very mixed work force. Yet the way in which they related to other free workers reveals the social distance between them, and those amongst whom they were living. On one occasion William Bisby arrived on the estate on which he was working, after a visit to the neighbouring village, and had a violent disagreement with the *mayoral*, leading him to get one of the slaves to fetch him an axe with which he threatened the Spanish overseer, "and with a menacing tone said he minded to cut off the heads of all the Spanish".²⁰³ Henry Elkins was imprisoned in 1844 partly as a result of spiteful declarations made against him by a free coloured mason, angry because Elkins had asked a different mason to set the steam engine boiler for him.²⁰⁴ According to Elkins, the mason, Manuel Morales, "was an enemy of mine on account of my not sanctioning the work he wanted to do on the estate".²⁰⁵ In what was possibly not an unusual set-up, Donald McIntosh was able to pay \$20 a month to the wife of the estate mason to cook his meals for him. This was not a large sum for him, but was a standard wage for domestic employment. Clearly the foreign

²⁰¹ *El Faro Industrial de la Habana*, 28th July 1850.

²⁰² Hodge, *Reminiscences*.

²⁰³ ANC, CM 51/1, pp.434-435.

²⁰⁴ Letter from William Sim to Crawford, Matanzas, 3rd July 1844 (PRO, FO 72/664, No.12).

²⁰⁵ Letter from Henry Elkins to Joseph T Crawford, Havana, 12th December 1844 (PRO, FO 72/664, No.52).

maquinista was in quite a different class position from that of the native worker and his family.

The attempt by migrant *maquinistas* to forge social alliances within Cuban society appears to have been ultimately unsuccessful. On the one hand, they effectively excluded themselves from full participation in a wider popular milieu by their preoccupation with their own individual advancement. This had led them to assert an identity that distinguished them from many of those alongside whom they worked. On the other hand, while in a few cases individual *maquinistas* succeeded in bridging the divide that separated them from participation in the hegemonic class, these were few. For all that most other *maquinistas* socially aligned themselves with their employers they continued to be outsiders.



XII - Cartoon satirizing attempts at introducing steam power to agricultural production

(Source: *El Moro Muza*, March 1864, reproduced in Moreno Friginals, *El Ingenio*, Vol.1, p.189)

When the engine explodes, another *maquinista* can be found, and failing that a good yoke of oxen can always be counted on. "It is said that steam ploughing is so costly, that a landowner sold half his estate to be able to plough the other half using this system."

CHAPTER SIX
A DEEPENING SENSE OF OTHERNESS:
THE EXCLUSION OF MIGRANT *MAQUINISTAS* FROM CUBAN SOCIETY

Geographically, the *maquinistas* were clearly distant from their old homes, in an age in which international travel was still a complicated process. The Europeans had to travel at least four thousand miles by ship to reach Cuba, a journey that in the mid-nineteenth century could take at least a month, and sometimes longer, depending on the route taken and the vagaries of the weather. The North Americans were somewhat closer to home, though even for them the trip back to New York and New England, where most came from, took several days, later described by the North American sugar planter Edwin Atkins as “a rough voyage”, suffering “the smell of cooking, bilge water, engine oil and steam from the sugar cargo”.¹

They also suffered an environmental difference and disjuncture. Without exception, the *maquinistas* came from temperate climates, and the Caribbean tropics would have seemed a very strange place to them. In some ways this may have been a positive experience. As *maquinistas*, they came from industrial centres, notoriously insalubrious, which, at the time of the *Escalera* repression, were prompting Engels to write *The Condition of the Working Class in England*, in which he described the chronic slums of the newly sprawling metropolises from which the migrant workers came.² Compared to the filthy conditions, drab architecture and leaden skies that they were leaving, the brilliant primary colours that greeted them in Cuba would have been a stunning experience, and the wide-open spaces of the sugar plantations would have contrasted sharply with the crowded city streets and factories.

However, the environmental change was not all good. They were ill prepared to suffer the ravages of the Cuban summer, and most *maquinistas* seem to have left the island during the summer months to seek out more agreeable climes. The months before the start of the grinding season often saw the arrival of hurricanes, whose destructive power was far more than anything they could have experienced in their homelands. In the mid-nineteenth century a number of especially devastating storms

¹ Edwin Atkins, *Memoirs* (cited in Weeks & Weeks, *New England Family Revisted*, p.70).

² Frederick Engels, *The Condition of the Working Class in England*, London: Grafton Books, 1969 [1845].

swept across the very districts where most of these migrants were working.³ Although the urban environment where the migrants came was not short of diseases, many new arrivals from North America and Europe succumbed to yellow fever in the coastal towns; and were at constant risk from the intermittent cholera epidemics that swept through the plantations.

Arriving from rapidly industrialising and urbanising economies, into one centred upon plantation agriculture and slavery, the *maquinistas* made a very important economic and technological contribution to Cuba. Yet most continued to be social outsiders. While they might have attempted to occupy a particular position in Cuban society, most proved to be too different, too at odds with local identities, and too challenging of such identities, to become successfully integrated. They were characterised by a contradictory and ambiguous position within the complex matrix of Cuban social relations. It might be expected that this would leave them open to a fairly free redefinition of themselves. However, their ambiguity led to a hardening of their definition as Others, as not entirely to be trusted, as somewhat suspicious. This chapter deals with this, using evidence which, while concentrating on the *maquinistas*, also draws on the experiences of other working class migrants in Cuba at this time. It examines how they became distanced from a Cuban society that, at least in part, sought to exclude them. This is explored through the political and legal encounters that highlighted their status as Others. These in turn had an effect upon their behaviour, as they found ways to deal with the isolated position in which they often found themselves. While their seasonal migration has already been examined, this chapter looks at other ways in which they individually reacted to the situation, in particular through the use of alcohol. The chapter ends with a discussion of why it should be that the *maquinistas* on the whole appear to have failed to become accepted and integrated into Cuban society, as other migrant groups of the time were.

***Maquinistas* as Others**

There is a tendency for migrant populations to be seen as a threat to dominant ethnic groups,⁴ and this generates an antagonism that forces an ethnically defined identity upon migrants: on the one hand, as 'foreigners' (a fairly non-specific category based

³ See Pérez, *Winds of Change*.

⁴ Anthias, *Ethnicity, Class, Gender and Migration*, p.139.

purely upon difference); and, on the other hand, as the idealisation of a particular national or ethnic category which the migrants, so discriminated against, feel compelled to assume.⁵ The direct encounter between the foreign *maquinistas* and the political and legal realities of mid-nineteenth century Cuba was one that was from the outset defined by their condition as outsiders, as Others within Cuban society. By so doing, it served to deepen that sense of Otherness, putting up systemic barriers to their potential incorporation. It contributed greatly to turning Cuba into a hostile terrain, in the perception of many migrants.

The political and legal atmosphere throughout the period was such as to make it all but impossible for foreign residents to lead a relaxed and 'normal' life. Even the most innocent of activities or words could suddenly be misconstrued, and at times it was sufficient simply to be of the wrong nationality, in the wrong place, at the wrong time, to fall foul of the law. In 1837, John Campbell arrived in Manzanillo, in the east of the island, with the intention of exploring possibilities for setting himself up there as a planter. It seems he arrived there quite accidentally, when the vessel that had rescued him from the shipwreck he had earlier suffered happened to pass by that part of the Cuban coast. Unfortunately, his arrival coincided with the official paranoia caused by the attempted liberal coup of General Lorenzo in Santiago de Cuba, and he was "denounced as a British spy as an agent of the anti-slavery society", and was "thrown among common criminals".⁶ In 1842, an officer from the HMS Romney (the British hulk stationed in Havana Bay for the purposes of housing emancipated slaves) was summarily arrested while relieving himself against the city wall. It was thought that he was spying on the city's fortifications.⁷ In 1864, the artist Walter Goodman had only just arrived in Santiago de Cuba, and was walking on the cliffs beneath the Morro castle with a Cuban artist, when he was rudely taken into custody, also charged with spying.⁸ It seems that this was linked to the state of alarm in Santiago at that time, with the city "virtually in a state of siege ...in consequence of the supposed discovery of a general conspiracy and rising of the black population".⁹

⁵ See Triandafyllidou, 'National identity and the 'other''.

⁶ ANC, GSC, 841/28257.

⁷ ANC, AP, 137/14.

⁸ Letter from John V Crawford to Earl Russell, Havana, 6th August 1864 (PRO, FO 72/1088, No.19). See Walter Goodman, *Un artista en Cuba*, Havana: Editorial Letras Cubanas, 1986 [1873].

⁹ Letter from Ramsden to Crawford, Santiago de Cuba, 30th June 1864 (PRO, FO 72/1088, No.19).

Contemporary visitors noted how “you can go nowhere in Cuba, without meeting soldiers”.¹⁰ The island, as one of the very few remaining jewels in the Spanish colonial crown, and certainly the most valuable, was heavily militarised in this period: a military presence that steadily grew. Partly as a result of this, “no man is safe in Cuba, so long as the present rule continues”.¹¹ At the end of 1852, William Uren “was peacefully at his own house” in El Cobre when he was “most brutally assaulted and wounded by a soldier assisted by others, also soldiers, belonging to the Regiment of Tarragona”.¹² After being assaulted in his house by the soldiers, he was “led ...down the hill towards the village”, being beaten and stabbed on the way.¹³ Commenting on the incident, the British Consul in Santiago de Cuba remarked:

I regret to say that the present is not the only case where a ruthless, and apparently unbridled Spanish soldiery, have assaulted, and committed acts of violence on the persons of British subjects while in the peaceable pursuit of their vocations.¹⁴

Cuba may have offered considerable rewards for the foreign *maquinistas*, but it was also potentially a dangerous place for them to remain in. They were exposed not just to official violence and abuse, but also to the consequences of a generalised atmosphere of tension that affected all who lived there. In 1859, Andrew Metcalfe, *maquinista* on the ‘Angosto’ estate near Guanajay, was murdered. It never became clear why.¹⁵ In 1866, John Frazer (a British *maquinista* erecting a steam engine on the ‘Lugardito’ sugar estate of the Conde de Vallellano) was also murdered, following an argument with another worker.¹⁶ Their exposed position as visible and prominent Others made them especially vulnerable, while their experiences served to intensify this position, denying them the possibility (or the desire) to attempt the shift in identity to one of incorporation into Cuban society that might have made their position more tenable. This was a vicious circle that ultimately was solved only by their departure.

¹⁰ Jane M. Cazneau (in Martínez-Fernández, *Torn Between Empires*, p.62).

¹¹ Letter from Crawford to Aberdeen, Havana, 4th October 1844 (PRO, FO 72/664, No.39).

¹² Letter from Crawford to Captain General, Havana, 11th January 1854 (ANC, GSC, 857/28957).

¹³ Letter from William Uren to Dr Forbes (British Consul), Cobre, 26th December 1852 (ANC, GSC, 857/28957).

¹⁴ Letter from James Forbes to Governor General de Medinilla, Santiago de Cuba, 30th December 1852 (PRO, FO 453/7).

¹⁵ PRO, FO 72/944, No.45; FO 72/966, Nos.15 & 27.

¹⁶ Letter from Consul General Synge to Lord Stanley, 26th March 1867 (PRO, FO 72/1153, No.10).

Hostility, in particular from the authorities, was a common experience for most foreign migrants in Cuba. In 1866, the French subject Jean Beanes was arrested in the town of Guanajay, and imprisoned for forty days accused of vagrancy. The French consul had no doubt but that it was a direct result of the ill will felt by the local authorities.¹⁷ In particular in the 1840s, ill feeling was manifested against the British as a whole, much of this directly caused by the militancy of British abolitionism at the time. Many complained of the “suspicion and distrust” that was directed against them by the authorities.¹⁸ With the language used from the Captain General down having “a tendency only to create alarm, as directed against the English nation”, British migrants (or those who might be mistaken for British) fell victim to the “excesses” of the soldiers who had “been let loose upon the country”.¹⁹ One of the chief protagonists in the *Escalera* repression, the Lieutenant Governor of Cárdenas, was known to have “openly avowed enmity to Englishmen”,²⁰ and was overheard railing against the “cursed English spirit of Independence”, which he would bring down before it was over”.²¹ Many other Spanish officials clearly shared his views – and not just as a result of slave uprisings, nor purely directed against the British. De Yarto, the Governor of Santiago de Cuba from 1838, “from the first moment of assuming the Government, never made a secret of his inconcileable [sic] feelings of hatred towards foreigners”.²²

Xenophobia was not confined to the authorities, but was at times seen amongst the Cuban population in general. In 1841, Patrick Doherty, a *maquinista* working on the Havana-Güines railroad, was imprisoned for several months, without trial, as a result of a fatal accident involving the train he was running, and kept locked up “with convicted malefactors” even though the Spaniard who was accused alongside of him was “suffered to be at large, in the neighbourhood of the prison.”²³ Local officials “acknowledged frankly” that they “did not believe either in the malevolence, nor even the carelessness ascribed to Doherty.”²⁴ However, they felt powerless to do anything about it. As the British Consul remarked:

¹⁷ Letter from French Consul General to Captain General, Havana, 22nd May 1866 (ANC, GSC, 1040/36245).

¹⁸ Letter from J. C. Burnham to Crawford, Matanzas, 15th May 1844 (PRO, FO 72/664, No.12).

¹⁹ Letter from J. Kennedy to Earl of Aberdeen, Havana, 1st January 1845 (PRO, FO 420/4, No.1).

²⁰ Letter from Crawford to O’Donnell, Havana, 12th May 1844 (PRO, FO 72/664, No.12).

²¹ Letter from Theodore Phinney to Crawford, Havana, 29th June 1844 (PRO, FO 72/664, No.19).

²² Letter from John Hardy, Jr., to Charles Tolmé, Santiago de Cuba, undated (PRO, FO 453/3).

²³ Letter from Turnbull to Valdés, Havana, 31st May 1841 (ANC, GSC, 844/28345).

²⁴ Letter from Turnbull to Palmerston, Havana, 2nd June 1841 (PRO, FO 72/585, No.58).

The fact I believe to be that the liberation would be exceedingly unpopular, in consequence of the strong prejudice against Foreign Engineers which unhappily prevails in the Island; and that without an express order from the Supreme Government at Madrid Mr Doherty's groundless detention may still continue for an indefinite period.²⁵

Such hostility and 'otherness' was particularly directed against the *maquinistas* in this period. It was felt by some that the country was being "invaded by a considerable number of foreigners protected by the title of machinist," and some commented that:

a man of knowledge does not need to abandon his country and transport himself to a foreign one to earn his bread; to a foreign land in which the climate, the customs, the speech and the legislation are entirely distinct.²⁶

Political encounters

The foreign *maquinistas* who arrived in Cuba cannot have failed to be shocked by the political realities they encountered. The Cornish engineer, Edward Hodge, later recounted his first sight of slavery in all its crudity:

On the first evening ...[I] saw an attractive looking young woman, a quadroon, but a slave, tied to a ladder and flogged by two stalwart negro drivers with whips, having hide lashes ten feet in length. Finally [I] saw the breaking up of an old established slave institution, the slaves all sold, not collectively, but individually, a parent or a child, according to the caprice of the purchaser, in all probability the family would never be reunited.²⁷

It was not just the black slaves who suffered under the Spanish regime, but also many white Cubans, increasingly straining at the colonial bit, were coming into conflict with the authorities, leading to ugly situations, of which the foreign *maquinistas* would have been aware, and undoubtedly affected by. When Philip Boylan, the owner of an engineering workshop in Santiago de Cuba, was expelled from the island, there were suspicions that there were some political motivations behind this. According to a letter published in a North American newspaper, he had been outspoken in his criticism of a particularly striking injustice on the part of the Spanish Governor:

Mr Boylan was one of the right sort; he spoke what he thought, publicly and before the whole world. Nine ladies of the most

²⁵ Letter from Turnbull to Aberdeen, Havana, 4th November 1841 (PRO, FO 72/586, No.87).

²⁶ Letter from José de la Torre, Bernardo Quintana and Antonio Pardo to the Captain General, Havana, 29th July 1850 (ANC, GSC, 1115/41442).

²⁷ Hodge (n.d.),.

respectable class in Cuba, were torn from their babes, and lay incarcerated in the Mor[r]o [castle], for no other crime save the patriotism of their husbands. Is there an honest Englishman in any part of the known world who would not cry out against such conduct?²⁸

The Spanish authorities felt they had plenty of grounds to suspect the British in Cuba of abolitionist and anti-Spanish opinions.²⁹ Such fears were, however, more widespread, and included many of the North Americans visiting or resident in the island, who were suspected of being “vehicles of abolitionist, Protestant, and anti-Spanish ideas”. There was a tendency in this to confuse the national origins of migrants, with some perceiving that most foreign workers in Cuba, above all the *maquinistas*, were Protestant, New England Yankees, opposed to slavery.³⁰ There were many in positions of power in Cuba who were predisposed to find subversion in such migrants. The investigation into the *Escalera* conspiracy was heavily biased by this prejudice, in which “enquiries and questions have been mainly directed” with a view to uncovering such guilt.³¹ In the 1850s, Philip Boylan was informed by the political secretary to the Captain General “that I had enemies who were intimate with the Governor of St. Iago [sic] and they had exercised their influence over him to my prejudice”, making him believe that he was politically dangerous.³² That foreign newspapers were also painting such a picture clearly did not help his situation.

Just as language-difference helped to mark out the migrants as aliens, and served to harden their feelings of Otherness, the presence of people speaking amongst themselves in a way that was only partly understood by the local population and the authorities seems to have heightened the sense of paranoia. Such a perception was strengthened by abolitionist-minded foreign officials resident in Cuba, who were keen to find in this the very subversion of which the Spanish and locals were so afraid. For example, the British Consul General, Joseph Crawford, reported back to his government:

It is said, that amongst the Bozals [African-born slaves] lately imported, there are many who speak English, if so, they have most

²⁸ Letter from ‘an Englishman’, *New York Herald*, n.d., 1853 (PRO, FO 72/858).

²⁹ Sarracino, *Inglaterra: sus dos caras*; David Murray, *Odious Commerce: Britain, Spain and the Abolition of the Cuban Slave Trade*, Cambridge: Cambridge University Press, 1980.

³⁰ Martínez-Fernández, *Torn Between Empires*, p.86.

³¹ Letter from Kennedy to Aberdeen, Havana, 31st July 1844 (PRO, FO 84/509, No.35).

³² Letter from Philip Boylan to Earl of Clarendon, Havana, 27th September 1853 (PRO, FO 72/858).

likely been kidnapped from the neighbourhood of our settlements in Africa, and will disseminate the principles of freedom to their fellow sufferers.³³

A large part of the case against the *maquinistas* caught up in the *Escalera* trials was based on the fact that they had been observed speaking in English together, and in the political atmosphere of the times this led to their being perceived as inherently dangerous.

Even when migrants spoke Spanish, there were likely to have been significant cultural differences in the manner in which they expressed themselves. Coming, as many did, from societies in which a far higher degree of freedom of speech was permitted, and considered normal, than in the Spanish colonies, and possibly unaware of the political extrapolations that would be made from their words, they would often have spoken their thoughts openly, with unforeseen consequences. In 1841, James Joyce, who was engaged in logging near Trinidad, got into a friendly argument with a Catalan with whom he was dining. His flippant remark that the entire island of Cuba would fall into English hands, and that all the blacks would be free, led to his arrest, accused “of predicting a revolution in the Island, the establishment of English supremacy, the suppression of the Slave Trade and the abolition of slavery”.³⁴ Despite having lived and worked in and around Cuba since 1833, Joyce appeared to be unaware that such statements were likely to be taken on face value, and be assumed to reveal his involvement in subversive political machinations.

It was a similar difference in perception of the power of the spoken word that led to the arrest of many of the *maquinistas* caught up in the *Escalera*. Donald McIntosh was overheard speaking to Candelario Carrasco, a free black fishmonger who, while selling his wares on the plantation, suffered abusive treatment at the hands of the overseer (*mayoral*). McIntosh asked Carrasco why he put up with the *mayoral*'s behaviour, to which Carrasco responded that he could do nothing else since the overseer was white. McIntosh, shocked by the level of racial discrimination of which this was such a crude example, told the fishmonger not to worry. He allegedly predicted that all in Cuba would one day be equal, and that the English would

³³ Letter from Crawford to Aberdeen, Havana, 27th December 1843 (PRO, FO 84/463, No.42).

³⁴ ANC, GSC, 846/28418; and Letter from Turnbull to Palmerston, Havana, 8th June 1841 (PRO, FO 72/585, No.59).

undoubtedly provide support for an uprising.³⁵ On another occasion, he was reported to have complained to the slave *maquinista* with whom he worked that the Cuban blacks were weak for not rising up as they had done in Santo Domingo and elsewhere.³⁶ While it is easy to see why this could be construed as evidence of involvement in a conspiracy, it seems far more likely that McIntosh was simply freely voicing the views that he held at an unfortunate moment in Cuban history, in which such words (however lacking in hard political activism) were perceived as inherently dangerous.

Such paranoia was not confined to the early 1840s, but prevailed throughout the mid-nineteenth century. For example, in the early 1850s, political tensions were again raised with the repeated incursions into the island of armed groups led by Narciso López, seeking to wrest control of Cuba from the Spanish (rather ineffectually, as it happened). While most of these invaders were Cubans, exiled in the United States, there was an assortment of other nationalities represented. Many were North Americans, in the main annexationist adventurers, seeking involvement in this unofficial expansion of United States influence in the region. But among those captured in 1851, there were also eighteen Irishmen, ten Britons, five Canadians, at least two Germans and an Italian.³⁷ That same year, the Spanish authorities, fearful of how their rule of Cuba was being represented amongst foreigners, and of the involvement of outspoken foreign migrants, ordered a US mail steamer to leave Havana “without communicating with anyone and not permitted to land passengers or mail.” It seems that the steamer’s clerk had previously made exaggerated reports in the New York press on “the political state of the island and the high handed measures of the Captain General in arrests.” The owners of the ship were warned that if it tried to return with this man still on board, entry would once again be denied, which in fact happened a few weeks later.³⁸ It was in this atmosphere that an official order was sent out by the Captain General to his officials throughout the island to keep a careful watch and account of all the foreign *maquinistas* in Cuba, their absences and movements, with the clear implication that this group should be especially suspected

³⁵ Evidence given by José María Ganga (ANC, CM 51/1, pp.84-85).

³⁶ Evidence given by Tomas Criollo (ANC, CM 51/1, p.68).

³⁷ PRO, FO 72/793, Nos.32, 42 &49.

³⁸ Private letter of J C Burnham & Co to Baring Brothers & Co, Havana, 9th October 1851 (BA, HC 4.6.8 (Part 1), No.89).

of subversive involvement.³⁹ It also led to the imprisonment, in 1853, of James Daykin (a British *maquinista* on the San Lorenzo estate near Canasí) following the baptism of the child of a friend of his. At the end of the service, someone shouted out “viva el cura” (long live the priest), upon which Daykin was arrested. The shout may have been taken to have been “Viva Cuba”, but it is striking that of all those present, it was the foreign *maquinista* (and not one of the numerous Cubans) who was seized.⁴⁰

In spite of the paranoia that was directed at foreigners in Cuba, and in particular the *maquinistas*, and for all that they may have at times fed this with their misplaced freedom of speech, it is highly unlikely that they were politically implicated in practice. For all that Edward Hodge expressed his horror at the worst excesses of the slave system, his position was not one of active opposition, but was considerably more ambivalent:

[T]he writer has seen it at its very best and at its worst. Where slaves have descended generation after generation, the property of say a good old French family, they will receive every consideration.⁴¹

James Joyce, in his defence, commented that his “firm attachment to the superiority of my own country ...must be acknowledged by all to be perfectly natural”:

But the whole conversation could be termed nothing more than an indifferent table chit chat of every day occurrence... I defy any one to produce a person from the neighbourhood where I have long resided who can truly say that they have ever known me to interfere with the slaves or the subject of slavery, or heard me speak derogatorily of the Spanish government.⁴²

A number of prominent merchants and others happily stepped forward to provide just such character references. Even Philip Boylan was quick to contradict the reports that had painted him into the role of crusader for the rights of the oppressed:

As the head of a large founding establishment his interests at stake here at present are certainly greater than your Excellency's, and the chances of the success of the business he is engaged in depend entirely on the preservation of the peace of the Island. It is rather difficult then to find a motive for the political sentiments which your

³⁹ ANC, GSC, 1285/50277.

⁴⁰ Letter from Crawford to Captain General, Havana, 23rd November 1853 (ANC, GSC, 857/28958).

⁴¹ Hodge, *Reminiscences*.

⁴² Letter from James Joyce to David Turnbull, Puerto Príncipe, 23rd May 1841 (PRO, FO 72/585, No.59).

Excellency has been pleased to attribute to him, but which he begs most respectfully to disclaim.⁴³

He himself asserted that “the fortune he possess[es] in this Island” was the result of “hard industry [and] strict economy”; and that he would be “ruined were the Revolutionary party in the United States and here to succeed in destroying the peace of the Island or in any way changing its present political feature”:

It is a well known fact ...that persons who by industry acquire a fortune in a Foreign Colony are not those who strive in favor [sic] of Revolutionary movements or countenance them in any way, for such persons have every thing to lose and nothing to gain, by so doing.

It seems that Boylan, far from opposing the Spanish politically, had frequently contributed to collections made to support the Spanish Army in its fight against invasion, as well as “for other projects”.⁴⁴

A similar picture emerges with the *maquinistas*, who were making quite considerable gains, both material and in terms of status, through their residency in Cuba. As many of them pointed out to their interrogators at the time of the *Escalera*, not only were they not politically inclined to side with the blacks in their struggle for freedom, they also had little reason to seek Cuban independence from Spain. Even if they felt sympathetic towards the Cubans in their struggle against the colonial yoke, they never really ceased to be outsiders, and were doing very well out of the current state of affairs. As a result it is highly unlikely that they could have felt sufficient engagement with Cuban society to be prepared to sacrifice the considerable privileges they were enjoying. This was pointed out not just by themselves, but by others, such as the British Consul at Havana:

I cannot believe, much less, can any man of common sense believe, that ...Mechanics who came here for the express purpose of making their living would be those to stir up anarchy & rebellion among the slave population.⁴⁵

Inasmuch as they tried to form social alliances in Cuba, these were much more likely to be with elite white groups, most of whom (in particular in the areas where most of the *maquinistas* were living and working) were largely content to maintain the political

⁴³ Letter from James Forbes to Governor General Joaquín M. de Medinilla, Santiago de Cuba, 29th December 1852 (PRO, FO 453/7).

⁴⁴ Letter from Philip Boylan to Earl of Clarendon, Havana, 27th September 1853 (PRO, FO 72/858).

⁴⁵ Letter from Crawford to Aberdeen, Havana, 7th August 1844 (PRO, FO 84/520, No.26).

status quo, and not to rock the colonial boat for fear of the effect that this would have upon their wealth and status.

The evidence would suggest that such migrants were at best marginal to Cuban political struggles. The Declaration of Independence made by insurgents at Puerto Príncipe in 1851 announced that “in the ranks of Independence we have to count all the free sons of Cuba, whatever may be the color of their race”, but the only foreigners they overtly included with these were the South Americans and Canary Islanders.⁴⁶ When North Atlantic migrants commented on the political situation in the island, they were far more likely to play up its peaceableness, so dependent were they on the smooth operations of the commercial networks, which could only be disrupted by political discontent. Thus one British merchant, keen on encouraging commercial links, reported that the inhabitants of Cuba were:

thoroughly free of false and visionary exitements [sic], and ruled by a most correct discrimination of their true interests; and every proceeding was marked with conspicuous sagacity and moderation. The country has reaped and reaps the fruits of the prevailing wholesome spirit through the greatest state of tranquillity, general confidence and a flourishing agriculture.⁴⁷

Even in 1851, at the height of political paranoia in the island resulting from the Narciso López expeditions, another foreign merchant was reporting:

In political matters we never were more quiet in this island and people generally are assuming their wonted cheerfulness after the ...events some months past and there is now every hope of a tranquil and prosperous future.⁴⁸

The Cornish mine engineer, Edward Hodge (who was in Cuba at the start of the first War of Independence in 1868, and experienced its early months) later remembered how the British in El Cobre maintained their neutrality, going to great pains to avoid giving gunpowder to the rebels, while not actively siding with the Spanish. Thanks to this neutrality, “the rebels scrupulously abstained from molesting us”.⁴⁹

⁴⁶ Declaration of independence signed by Joaquin de Agüero Agüero, Francisco Agüero Estroda & Ubaldo Artega Pina, Puerto Príncipe, 4th July 1851 (PRO, FO 72/793, No.32).

⁴⁷ Strouder’s proposal for trade in Havana, 1830 (BA, HC 4.6.1, Nos.4-5).

⁴⁸ Private letter from J. C. Burnham & Co to Barings Brothers & Co, Havana, 18th January 1851 (BA, HC 4.6.8 (Part 1), No.56).

⁴⁹ Hodge, *Reminiscences*.

Legal encounters

If the Spanish authorities displayed an unfounded paranoia in their reaction to the foreign *maquinistas*, and other migrants, this paranoia was mutual. For all that they remained outsiders within Cuban society, on occasion individuals among them came into direct contact with the legal system of the island. Their reaction to this was generally a perception of untoward harshness in their treatment. In December 1843, John McConochy, a British blacksmith resident in Puentes Grandes (a Western suburb of Havana), complained of having been placed in the stocks from Friday night to Saturday noon by the Captain of the district. He was only released on payment of money to the value of \$74.40 by his employer, the British owner of the sawmill where he worked. The implication was that not only had McConochy been treated poorly, but that the Spanish officials' intention was the extortion of money.⁵⁰

The language-barrier undoubtedly compounded the problems of xenophobia experienced by such migrants, leading to the benefit of the doubt being granted against them. In 1849, James McCullough found himself imprisoned in Júcaro, unable to defend himself because no interpreter was provided. He had been arrested "because when resisting the brutal conduct of a soldier who was beating him, he very imprudently drew a knife, in his self defence".⁵¹ It also prevented many from knowing how to work the system in which they found themselves:

[T]hese unfortunate men are totally ignorant of the language, they do not know how to obtain access to these authorities, and I am assured, ...that they have suffered most unheard of cruelties.⁵²

The treatment of those arrested during the *Escalera* was said to have been "most unsatisfactory", and it was widely feared that at least the British among them could not expect to receive either fair treatment or trial because of their nationality.⁵³ While none of the *maquinistas* died as a direct result of the imprisonment, two of the other foreigners arrested alongside them, Joseph Leaming and Patrick O'Rourke, did not survive. Shortly before his untimely death, Leaming wrote that he:

⁵⁰ Letter from Crawford to Captain General, Havana, 24th December 1843 (ANC, ME, 2289/O).

⁵¹ Letter from Crawford to Captain General, Havana, 20th October 1849 (PRO, FO 313/54).

⁵² Letter from Crawford to Captain General, Havana, 26th March 1859 (PRO, FO 313/54).

⁵³ Letter from Crawford to Aberdeen, Havana, 7th June 1844 (PRO, FO 72/664, No.12).

has suffered deeply in body and in mind, ...he has been subjected to privation and exposed to dis-comforts [sic], his health has been injured & his constitution weakened.⁵⁴

O'Rourke's "intellect is now almost destroyed and it is but too probable that he never will recover from the effects of such unheard of ill treatment".⁵⁵

Patrick O'Rourke is described by those who knew him, as being at the time of his arrest, a strong, healthy-looking man of about 35 years of age. At the time I first saw him, on being brought to this place, his hair, and beard, were turned completely white, and he had the appearance of a man of 60.⁵⁶

The treatment suffered by the foreigners became the subject of much debate. The Spanish themselves went to great pains to prove that they had been treated with all consideration considering the seriousness of the crime of conspiracy of which they stood accused.⁵⁷ Deep contradictions exist in the evidence. While the British were declaring that O'Rourke was being kept in inhumane conditions, the Spanish claimed that, despite the aggressive attitude that he had displayed, he had been treated "with all consideration and sweetness", provided with the same food given to the white employees on the estate where he was held captive, separating him from the commonality of the prisoners.⁵⁸

Much of the problem seems to have been one of differences of perception as to what was acceptable behaviour for a legal system. No doubt, as far as the Spanish were concerned, they considered that they really were treating these foreigners not just fairly, as they would treat anyone else, but even providing them with preferential treatment. It was simply that the Spanish legal system (at least as it operated in Cuba) was generally harsh, treating prisoners in effect as guilty until proved innocent. There was also a tendency for new regulations to be declared almost arbitrarily (or at least so it seemed to foreigners). At one point, the British Consul in Santiago de Cuba, John Hardy, found himself caught out by a spate of new laws that had been introduced in the city by the Governor. The particular rule that Hardy himself tripped over, was the prohibition of using a carriage during the days of the Mamaracha festival - unless you

⁵⁴ Statement by Joseph Leaming, 17th September 1844 (PRO, FO 72/664, No.41).

⁵⁵ Letter from Crawford to O'Donnell, Havana, 14th August 1844 (PRO, FO 72/664, No.35).

⁵⁶ Letter from George Bell to Crawford, Cárdenas, 1st November 1844 (PRO, FO 72/664, No.48).

⁵⁷ Letter from Captain General O'Donnell to Crawford, Havana, 4th June 1844 (PRO, FO 72/664, No.12).

⁵⁸ Letter from O'Donnell to Crawford, Havana, 13th August 1844 (PRO, FO 72/664).

were wearing a disguise. Inadvertently venturing out of his house without the demanded festival costume led to the imposition of quite a hefty fine.⁵⁹

It was also a legal system that, partly as a result of its heavy bureaucracy, worked best when liberally oiled with financial contributions by those caught up in it. The corruption was institutionalised, and permeated all layers, producing a legal culture that many foreigners considered wrong and immoral – not because their own countries did not have their own systems of bought privilege, but because they were not used to the way in which this was manifested in Cuba. In 1841, Mary Gallagher, an Irish washerwoman, who had lived for many years in Havana, fell victim to a local official extortion racket, in which she was blackmailed by the arrest and ill-treatment of her young slave boy into paying what was, for her, a considerable sum to guarantee his release.⁶⁰ At a higher level, when the North American *maquinista*, Ezra Dod, found that an invention of his had been stolen by another, he took this person to court, only to lose the case because of evident collusion between the accused and the court officials. He was forced to drop the action, and not to take it further, because:

It is well known that if justice can be found nowhere else in Spain, you can get it in the Supreme Court, but to get there you must needs make a very large deposit in certain 'royal coffers' and these seem never to have become contaminated with any of that unique justice of the Supreme Court. On the contrary, these coffers seem to be constructed like the fisherman's devices, so that what once gets in can not easily get out.⁶¹

Because of this, migrants found the legal system to be yet another element defining their Otherness. Because of who they were, they were more likely to be targeted by that system; yet when they were, they were ill equipped to deal with it:

Perhaps in no country in the world, not even excepting the Barbary states, do Foreigners stand more in need of the protection of their own government, than in the Spanish West Indies... [Their] oppressors are invested with absolute power, and perfect immunity from the consequences of its unjust exercise, by the secrecy with which the judicial proceedings are conducted.⁶²

⁵⁹ Letter from John Hardy, Jr, to Charles Tolmé, Santiago de Cuba, undated but presumably late 1830s (PRO, FO 453/3).

⁶⁰ Letter from Turnbull to Valdés, Havana, 6th December 1841 (ANC, GSC, 843/28283).

⁶¹ James H. Dod, 'Reminiscences of Cuban Engineering', *Louisiana Planter & Sugar Manufacturer*, 7th February 1914.

⁶² Letter from Turnbull to Palmerston, Havana, 12th August 1841 (PRO, FO 72/586, No.69).

The result for those who found themselves in legal difficulties was to feel the need to assert their Otherness, by laying claim to a national identity and hence protection by the authorities of their homelands from the authorities that were causing them difficulties. Patrick Doherty, the train *maquinista* arrested following a fatal accident, sought the assistance of the British consul in getting his “case to proceed to Havana”, where he felt he would have greater chances of a fair trial – or at least of being more in control of a situation in which he had found himself to be entirely powerless:

My reason for appealing to your influence and protection is not to shelter myself thereby from the just consequences of what I have done; but with the hope of being able to obtain a just and impartial decision as to whom the blame belongs.⁶³

In the end Doherty does seem to have been treated fairly, by the reckoning of Spanish justice. For all that he was kept imprisoned while the protracted legal proceedings took place, his eventual sentence (considering he had caused deaths) was not harsh. In addition to being required to pay all legal costs and to pay compensation for the damage and harm caused, he was banished for four years not from the island, but from the district of Havana and Bejucal. Given the antipathy felt towards him by the local population as a result of the deaths, he would no doubt have wanted to move away from there anyway.⁶⁴

Involvement with the legal process proved problematic for many of these migrants not because it was especially harsh *per se*. After all, the European and North American judicial and penal systems were far from liberal themselves in this period.⁶⁵ But these were people who had probably never previously found themselves caught up in such a process, and so they therefore had no experiential benchmark against which to judge their treatment in Cuban prisons and courts. It was not simply a painful experience, but also a deeply shaming one for them. Joseph Leaming, who died as a result of his treatment, nevertheless appeared, if anything, more concerned about what his imprisonment might imply in terms of his social status:

⁶³ Letter from Patrick Doherty to David Turnbull, Bejucal, 16th May 1841 (PRO, FO 72/585, No.56).

⁶⁴ Sentence against Patrick Doherty, Havana, 20th November 1842 (PRO, FO 72/609, No.42).

⁶⁵ See, for example: Philip Priestley, *Victorian Prison Lives*, London: Methuen, 1985; and Victor Bailey (ed.), *Policing and Punishment in the Nineteenth Century*, London: Croom Helm, 1981.

[H]e against whom through his whole life the finger of scorn was never raised, has had the disgrace of being incarcerated as a criminal.⁶⁶

The *maquinistas* held the respectable status they had gained at a very high premium. Robert Mathers complained that he:

was incarcerated as a common criminal, thrown among the basest malefactors, suffering every privation and indignity which those alone can imagine or describe who have witnessed the like.⁶⁷

Daniel Downing laid his case before the British authorities, “confidently relying upon the protection always extended towards the oppressed of Her Majesty’s subjects”, complaining that:

all my losses is [sic] trifling in comparison to the distress I had to endure and my injured feelings being put in the stocks and treated like a murderer or felon, without any cause whatever.

To him the greatest harm he suffered was “the injury done to my character and reputation”.⁶⁸

The reaction to Otherness

Some of the *maquinistas* reacted to the dangers and isolation imposed on them by their persistent identity in Cuba as outsiders through a withdrawal from activities that might lead them to be more exposed than they were already. Thus Robert Bell was said to have been a very quiet man, who was opposed to leaving the estate while the grinding season was in progress. He devoted all his attentions to his duties, and led a very moderate life. This did him little good, though, since despite this withdrawal into himself and his work, he was arrested in 1844 accused of complicity in the *Escalera* conspiracy.⁶⁹ For some, the Otherness from which they never succeeded in escaping, but which if anything increased with time, seems to have been too much. James Mather, who had also been imprisoned in 1844, was arrested thirteen years later for a quite different reason. Despite the length of time he had spent living and working in Cuba, he showed every sign of continuing to be as much a stranger as when he first arrived. In fact, the strain seems to have been progressively getting to him, and witnesses confirmed that he had been showing signs for some time of mental

⁶⁶ Statement by Joseph Leaming, 17th September 1844 (PRO, FO 72/664, No.41).

⁶⁷ Statement by Robert Mathers (PRO, FO 72/664, No.12).

⁶⁸ Statement by Daniel Downing, 28th September 1844 (PRO, FO 72/664, No.41).

⁶⁹ ANC, CM 51/1, pp.456-457.

instability. This finally led to his attempt at suicide in 1857, resulting in his being sent out of the island.⁷⁰ More successful in this was Dujardin, who had been the French administrator of the Santa Ana sugar plantation. He was discovered having hanged himself with a handkerchief in 1850.⁷¹

Withdrawal and quiet desperation were not the reaction of many other migrants in Cuba: in fact, quite the reverse. It is noteworthy that the character witnesses who defended Robert Bell asserted that he was well-behaved and abstemious, since it quickly became a common prejudice against such migrant workers that they were given to riotous behaviour and drunkenness. This did not entirely come from pre-established prejudices, but seems to have been actively confirmed by the activities of many. In 1843, a number of Cornish miners were arrested in El Cobre for having gone on strike for higher wages. When they were released, a number of them were arrested almost immediately, having run amok in the town. Having displayed the unforgivable combination of industrial militancy and violently drunken excess, they were shipped back to Britain at the earliest opportunity.⁷² A problem that the managers of the copper mines faced was that, in order to keep wages low there was a preference for unmarried men (who were more likely to be able to make a saving from what they were paid). However, this had to be weighed against such men being more given to unacceptable forms of behaviour in their encounter with Cuba. Again in 1843, James Treweek (mine manager for the Royal Santiago Mining Company) complained that of the group that included the miners who went on strike that year, on their initial arrival, two had to be left behind because of drunkenness, and “with one or two exceptions all were in that state in Cobre on that and the next day”. One of them, Timothy Kelly, was in prison for nine days for drunkenness and refusal to work, and for three days on another occasion:

The Lt Governor of Cobre has complained that their drunken conduct in their house was a nuisance to the inhabitants & without improvement he must order them out of the village.⁷³

⁷⁰ Letter from Crawford to Captain General, Havana, 15th May 1857 (PRO, FO 313/54); ANC, GSC 1032/35719.

⁷¹ Letter from Storey Spalding & Co to Baring Brothers & Co, Havana, 21st December 1850 (BA, HC 4.6.10, No.27).

⁷² Letter from Clarke to Aberdeen, Santiago de Cuba, 13th August 1843 (PRO, FO 72/634, No.15).

⁷³ Letter from James Treweek to Charles Clarke, Cobre, 23rd April 1843 (PRO, FO 72/634, No.37).

The Irish navvies, who played an important part in the construction of many of Cuba's railways, were also noted for their riotous behaviour and intemperance.⁷⁴ In 1858, John Smith, who was part of the gang working at Ceiba Mocha, was wounded during a fight with a group of rural guards. He had earlier been arrested for some kind of disorder, but had escaped their custody, so provoking the confrontation.⁷⁵ Following a number of complaints relating to the ill-treatment of such workers, an official investigation claimed that:

the men who complain are bad, addicted to liquor, are dissatisfied, without any cause whatever, because they are well paid, well fed, well lodged and well attended to and treated when sick with the greatest kindness and humanity, and moreover that they were all called together and were asked if they had any cause of complaint or any matter or thing to complain of, but that no one answered to that invitation.⁷⁶

Patrick O'Rourke, who died following his imprisonment in 1844, had a long history of drunkenness, which gave the Spanish authorities the opportunity to blame his death on this, rather than the ill-treatment he had suffered.⁷⁷ In 1841, O'Rourke had lost his employment on the Matanzas port railway for his drunken behaviour, and went to work on the Júcaro line. Despite being described as an intelligent worker, this was tempered by his frequent bouts of very heavy, and raucous, drinking.⁷⁸ Although one doctor was clear that "his imprisonment [and] subsequent ill treatment was undoubtedly the exciting [sic] cause of his illness", it was clear that his susceptibility was alcohol related.⁷⁹ Another doctor asserted that it was his returning to alcohol on his release (despite the warnings of his friends) that caused O'Rourke to become gravely ill. The hepatitis that contributed to his death was aggravated by "his relaxed life and continuous use of alcohol, ...combined with his mental passions".⁸⁰

It was not solely among unskilled and semi-skilled foreign workers that drunken behaviour was not only an outlet, but also a point of contention with the Spanish

⁷⁴ ANC, RCJF, 8/521. That Irish labourers should have been labelled as drunks is not surprising, given the internationally prevalent prejudice that connected that nationality with drink (Richard Stivers, *Hair of the Dog: Irish Drinking and its American stereotype*, revised edition, New York & London: Continuum, 2000).

⁷⁵ ANC, ME, 832/B.

⁷⁶ Letter from Crawford to Captain General, Havana, 11th May 1859 (PRO, FO 313/54).

⁷⁷ Declaration from Tenencia de Gobierno Político y Militar de Cárdenas, 7th December 1844 (PRO, FO 97/382).

⁷⁸ Evidence given by Manuel Carrera, November 1844 (PRO, FO 97/382).

⁷⁹ Statement of Dr Franklin Gage, Cárdenas, 3rd November 1844 (PRO, FO 72/664).

⁸⁰ Evidence of Dr José Lorenzo de Hevia and Dr Manuel Yllá (PRO, FO 97/382).

authorities and Cuban society. John McConochy, a British blacksmith working at Puentes Grandes near Havana, was arrested following a drunken brawl with another British worker, Hugh Gilmore. McConochy hit Gilmore several times in the face and back, damaging the latter's left eye. Not only McConochy, but many other foreign workers stationed at Puentes Grandes had a very bad reputation in the locality for their drunken and disorderly behaviour. Although McConochy later complained of his imprisonment (using it as an excuse to accuse the local authorities of corruption), it seems that they had no alternative but to keep him locked up over night, since he was so drunk and aggressive that nobody, not even his friends, were capable of dealing with him.⁸¹

For all that they formed something of an elite among workers, the foreign *maquinistas* were also renowned for such behaviour. In 1838, Thomas Lawson deserted his job in the workshops of the Havana-Güines railway, and was discovered "in a highly drunken state, and insulting in his language all others who were present." His "scandalous and unbearable" conduct led to his being deported, since his employers felt that there was little point keeping him on, and were afraid that if they allowed him to work freelance, or to find some other position in the island, this would encourage their other mechanics to do likewise.⁸² His was not an isolated case. It became necessary to dismiss many of the other operatives at the Villanueva workshops, who were found to be "incapable men, with bad habits":

They all drink more or less, and ...their hidden bottles can be found [in various parts of the workshop] in unused machines, in the carriages and the corners. This is the origin of all the tendencies and faults that this branch has.⁸³

Rumours abounded that the foreign *maquinistas* running the Havana-Güines trains were in the habit of driving drunk.⁸⁴ Following the dismissal of the chief *maquinista* William Knight (who was allegedly responsible for a particularly nasty accident), the second machinist, Samuel Keating, was given his job, despite being "very clumsy, and

⁸¹ ANC, ME, 2289/O.

⁸² Letter from Conde de Villanueva to Captain General, Havana, 10th May 1838 (ANC, RCJF, 8/581).

⁸³ Report of Cruger, Havana, 17th June 1838 (ANC, RCJF, 132/6453).

⁸⁴ AHM, UCF, 33/7.

with an unbearable temper". He was chosen because he was considered to be "the least drunk" of all those in the workshop.⁸⁵

Although they did not come to the attention of the authorities in the same way, largely because of their isolation, many of the *maquinistas* on the sugar plantations were given to heavy drinking. This had also been observed in the British sugar colonies:

The habits of the white employed on plantations were destructive to health and life; the plantations were mostly in swampy and unhealthy valleys, surrounded by high mountains with a river running through the middle, riding or walking all day often in the mud, drenched to the skin and dried again several times a day during the rains, after which much exhausted they would have to sit up nearly all night in a boiling house. The whites drank hard, they said to keep the system up and keep the fever off.⁸⁶

It applied equally well to those in Cuba. This is confirmed by an examination of the daily records of the plantations where they were working. Many such estates distilled their own *aguardiente* (cane spirit), which was sold to the plantation workers, its cost offset from their final wages. The *maquinistas* were very well paid, with plenty of money to spare since they had little to spend it on. There was also little to relieve the monotony and isolation of their life on the plantation, and so they sought solace in the bottle. The records of the 'Palma' estate, near Sagua la Grande, shows that large quantities of *aguardiente* were regularly sold to the white estate workers. While the Cubans among them generally bought smaller quantities of lower quality, the foreign *maquinistas* tended to buy quite large, regular amounts, often of the finest that the estate produced.⁸⁷

Despite heavy drinking being frowned upon by respectable Cuban society, for these foreign workers it was by no means aberrant behaviour. They did not simply turn to drink because of the tribulations that they faced, but were continuing a well-established way of life in which for many alcohol had always played a significant part. For all that they were part of an emergent 'respectable' working class, or 'labour aristocracy', many of the *maquinistas* came from a culture in which drinking was a very common activity, forming the basis of much social interaction. This seems to have

⁸⁵ Letter from Conde de Villanueva to Alexander Robertson, Havana, 25th October 1838 (ANC, RCJF, 131/6412).

⁸⁶ Letter to the Editor from 'Reformer', *The Beehive*, 12th December 1868.

⁸⁷ 'La Palma' Estate Book 2 (BL, HEE, MSS Span c.3).

been particularly so in the case of the British. As one temperance reformer commented:

On the whole, in Great Britain, we seem to be behind the more refined nations of modern Europe, in our progress of getting quit of these barbarisms; and there appears no parallel elsewhere to the multiplicity and complication of our drinking usages.⁸⁸

The British engineer, Henry Maudslay, had “no hesitation in saying, there are less drunken men in the manufactories abroad than in England”.⁸⁹ When asked, the *maquinista* Thomas Lester (who had migrated from Britain to work in France) commented that although no beer nor ale was to be had in Paris, he consumed “chiefly wine” instead.⁹⁰ Another migrant machinist, Grenville Withers, when asked about “malt liquor, as machine-makers generally consume a good deal of that article”, responded that “they supply the want of that by gin and brandy”.⁹¹

Thomas Wood professed to being very temperate and abstemious in his personal habits. However, he felt uncomfortable much of the time, since he was clearly in a minority amongst his fellow workers:

Their mode of living was different to the homely manner I had been accustomed to. Flesh meat, as they call it, must be on the table twice or thrice a day. A rough and rude plenty alone satisfied them. The least pinching, such as I had seen scores of times without a murmur, and they were loud in the complainings about ‘clamming’.

The picture he painted was very far from that portrayed by those wishing to show how engineering workers formed the backbone of a ‘respectable’ working class adopting bourgeois behavioural norms:

The men among whom I worked were wicked and reckless. Most of them gambled freely on horse – or dog-races. Numbers brought a day’s food with them and nearly all their breakfasts, which was dispatched with celerity when betting books were produced and bets made. There were very few who took care of their money, fewer still who went to a place of worship, or regarded the Sabbath in any other light than as a holiday.⁹²

⁸⁸ John Dunlop, *A Philosophy of Artificial and Compulsory Drinking Usages in Great Britain and Ireland*, London: Houlston & Stoneman, 1839, p.261.

⁸⁹ Henry Maudslay, evidence before parliamentary committee, 20th February 1824 (PP 1824 v., p.37).

⁹⁰ Thomas Lester, evidence before parliamentary committee, 5th May 1824 (PP 1824 v., p.123).

⁹¹ Grenville Withers, evidence before parliamentary committee, 10th March 1841 (PP 1841 (1) vii, p.59).

⁹² Wood, in Burnett, *Useful Toil*, pp.310-11.

The foreign *maquinistas* in Cuba may have been intent upon improving their financial and social standing and status, but they could have found much in popular Cuban culture to attract their more hedonistic attentions. For all the moral outbursts that came from 'respectable' sources in the island, for most Cubans life was never as strait-laced as their Spanish rulers, and Creole elites, would have wished. For example, the town of Güines (which grew rapidly in the mid-nineteenth century, not only because it was the principal market town for the sugar district in Havana province, but because it was the terminus of the first railway line), was described "as a sort of Monte Carlo":

[H]acendados flocked to stake their share of the proceeds of their crops upon the cards at the game of monte, and the cock-fighting of the Red and the Blue clubs in whose contests the dishevelled-headed young ladies, took next to the feathered contestants the principal part.⁹³

The runaway slave, Esteban Montejo, recalled the popular culture of the rural districts, which the *maquinistas* may have had some contact with:

Near to the plantations were the taverns. There were more taverns than jiggers in the hills. They were like a kind of bazaar, where anything could be bought.

These taverns were, according to Montejo, exceedingly seedy places, where blacks and whites drank heavily and played together at various gambling games, often of quite scatological inventiveness:

They would take a large leather sack with a hole in, into which they would stick their 'members'. He who reached the bottom was the winner. The bottom was covered in a thin layer of ash, such that when the man removed his 'member' it could be well seen whether or not he had succeeded.⁹⁴

The authorities were aware, and afraid of, this riotous popular culture, and there were periodic attempts to prohibit, or at least control it. The Slave Code of 1842 charged plantation owners and overseers "to watch vigilantly in order to restrain excessive drinking ...and the introduction of slaves from another estate and free men of

⁹³ James H Dod, 'The Development of the Cane Mill in Cuba, *Louisiana Planter & Sugar Manufacturer*, 11th September 1915.

⁹⁴ Barnet, *Biografía de cimarrón*, pp.26-27 (my translation).

color into their amusements".⁹⁵ The 1844 regulations went still further, banning the sale of *aguardiente* in the rural districts:

In the country, ...all taverns that for their bad local situation, ...show themselves incapable of contributing to the public utility shall be suppressed...⁹⁶

Given their isolation, their status-consciousness, and the tendency for their Otherness to be accentuated, it may be unlikely that the foreign *maquinistas* would have demonstrated the level of social incorporation that full involvement in this popular culture would have entailed. In some cases they may have even found themselves in conflict with this popular culture, as did the British *maquinista* William Harris, who was working on a sugar plantation near El Cobre in 1861:

[O]n his arrival at that estate on Sunday night from Cobre he found the overseer in a half intoxicated state, who quarrelled with him, struck him, knocked him down, & drew his knife, and Harris in his self defence drew from his Pocket a Pistol which he carried for his protection during his night journey from Cobre.

In the end it was Harris who was arrested following this encounter, when the overseer appealed to the local Chief of Police, who was clearly predisposed to treat the foreigner as the culprit.⁹⁷

The number of cases of drunken foreigners was sufficient to alter the perception of all such migrants, and was another basis upon which their Otherness was asserted against them. In 1836, the Junta de Fomento (which was responsible for the construction of the first railway line) was so tired of the vagrancy and wanton behaviour of many of the foreign railway workers that they "resolved not to again employ labourers of this kind, who have proven to be so bad".⁹⁸ In practice, most subsequent railway constructions continued to use migrant labourers of exactly the same kind, but they now found themselves in an atmosphere in which the local authorities, and others, were predisposed to regard them negatively. Two decades later, little had changed, and even the British Consul who was trying to defend them

⁹⁵ Slave Code of 1842, translated from 'Bando de gobernación (1844), pp.59-68, in Paquette, *Sugar is Made with Blood*, pp.267-72.

⁹⁶ Slave Regulations 1844, translated from Zamora y Coronado (1844-49), Vol.3, pp.139-41, in Paquette, *Sugar is Made with Blood*, pp.273-4.

⁹⁷ Letter from James Forbes to Brigadier Iganacio Carazo de la Peña (Governor), Santiago de Cuba, 7th February 1861 (PRO, FO 453/9).

⁹⁸ ANC, RCJF, 8/540.

had to admit that “much of the misery which I have seen the labourers suffering has been occasioned by their own misconduct and their habits of intoxication”.⁹⁹

One North American visitor clearly felt that such migrants as the *maquinistas*, whatever their status as ‘respectable’ workers might have been, were given to behaviour that transgressed the codes of local society. While travelling on a train, she experienced at first hand the uncouth antics of a number of foreign commercial agents:¹⁰⁰

They put their feet on the seats, they yawned and stretched, they roamed restlessly up and down the passage way, they shouted bad witticisms to each other from opposite ends of the cars, they badgered the conductor, and they smoked as vigorously as the Spaniards, but with far greater and more reckless expenditure of saliva. They seemed to have left all the decent restraints of life at home, to roam lawlessly among a people whereof the ceremonious politeness has passed into a proverb.¹⁰¹

In 1846, the New York merchants Holt & Owen sent W. F. Wilkins to assist their planter friends in Cuba, believing “that he understood managing steam-engines on sugar estates”. They soon regretted their decision:

On the day of his arrival at Nuevitas he got drunk, and according to all accounts lay in that state on the wharf the greater part of the time whilst the vessel was loading.

When it was expensively discovered that Wilkins was far from as skilled as he had claimed:

he again gave himself up to drinking, and was drunk nearly all the while till the time of the vessel’s sailing; and after his arrival here we saw him staggering out of the cabin.¹⁰²

However much individuals attempted to lead a respectable and abstemious existence in Cuba, they could not avoid being tarred with the same brush. Patrick Doherty felt particularly aggrieved during his imprisonment in Bejucal that a whispering campaign was being carried on against him, with the rumour being spread

⁹⁹ Letter from Crawford to Captain General, Havana, 16th March 1859 (PRO, FO 313/54).

¹⁰⁰ It should be remembered that it was common for *maquinistas* to become agents themselves, and hence this account may be in some way revealing of how such migrants tended to behave.

¹⁰¹ Jay, *My Winter in Cuba*, 1871, pp.267-8.

¹⁰² Letter from Holt & Owen to R. J. Walker (Secretary to US Treasury), 18th July 1846, in *Reports from the Secretary of the Treasury* (1848).

that he was drunk when in charge of his locomotive at the time of the fatal accident that led to his arrest:

I was not only, not intoxicated on that day (the contrary has been said); but that during the year past (nor any previous time) had I been in that situation. My temperate habits can be proved by all my fellow workmen at Villanueva.¹⁰³

But then these would hardly have been very effective character witnesses, since all his workmates were generally presumed to be drunk and disorderly, whether or not they actually were.

Though they may not have participated in the social activities that would have provided them with a ready basis for their incorporation into Cuban society, their isolation from that society was partly defined by prejudices concerning what was perceived as their tendency towards alcoholism. While in the long term they simply left the island, in the short term the reaction of many was to get quietly (or not so quietly) drunk amongst themselves, or on their own: a pastime which both illustrated how separate they felt, and yet served to accentuate the very prejudices that were helping to separate them. If drinking was an escape from the contradictions of their identity and their exclusion from Cuban society, it also served as a continuing reminder to all of those very ambiguities.

Conclusion - the hidden injuries of migration

“If you don’t belong to society,” write Richard Sennett and Jonathan Cobb in *The Hidden Injuries of Class*, “society can’t hurt you”.¹⁰⁴ Such is the impulse behind the tendency towards individualisation as a mode of defence, and it can be seen to have applied to the migrant *maquinistas* in Cuba. Alienated by the society in which they found themselves, unable to overcome the contradictions that prevented them from becoming fully incorporated into Cuban society, they came to embrace their alienation “in order to maintain equilibrium in their lives”.¹⁰⁵ While it was their aspirations and status-concerns that contributed to this alienation in the first place, their experience of this served to heighten the individualist tendencies that they had arrived with, setting up a deepening cycle of advancement and exclusion:

¹⁰³ Letter from Patrick Doherty to David Turnbull, Bejucal, 16th May 1841 (PRO, FO 72/585, No.56).

¹⁰⁴ Richard Sennett & Jonathan Cobb, *The Hidden Injuries of Class*, Cambridge: Cambridge University Press, 1972, p.55.

¹⁰⁵ Sennett & Cobb, *Hidden Injuries*, p.215.

When the structure of society appears as permanent or beyond human control, when what human beings have created comes to seem immutable, 'natural', transformation becomes individualized. How you are going to interpret the world moves to the front of consciousness, how you can transform it in accordance with your needs ceases to be a real question... Circumstances, the structure of society, remains and you move; and as a result you leave situations, classes, structures, as they are... Because he can see himself moving in society he individually looks for another situation, rather than transforming the one he is in.¹⁰⁶

It was hard for the *maquinistas* ever really to escape from being seen as Others. They continued to be ethnically distinct, thanks to the combination of national origins, language and such important cultural distinctions as religion. But their ethnicity was itself highly ambiguous, and largely contingent on the response of Cuban society, and its authorities, to them. When they could expect some advantage by so doing, they asserted nation-based identities. However, this was generally only in times of crisis. At other times they demonstrated themselves to be part of a more loosely defined, transnational, non-Spanish grouping: an ethnicity defined by their lying outside the important ethnic divisions that cut through Cuban society. This itself had an ambiguous effect on their identity. On the one hand, it led to a commonality of interest being felt not only amongst them as a narrowly defined migrant group; but also with others who, despite their social differences, likewise fell into this national and ethnic Otherness. On the other hand, it also enabled them to engage in a more fluid way with Cuban society. Placed outside the established relationships, they were able to insert themselves on a class and racial level as they saw fit. While their Otherness was often a source of tension and conflict, it also labelled them as special, bringing material, social and cultural privileges. Their exposure may have led them to become victims of political repression, since they could be easily identified and scapegoated; but at the same time they enjoyed a freedom of economic, social and cultural movement to which they were unaccustomed.

The apparent failure of most foreign *maquinistas* to engage in a sexually stable way with the Cuban population highlighted the tenuousness of their position in the island. Unlike other groups of migrant workers, the *maquinistas* were dominated by an impulse to 'make good' that was not merely a dream, but eminently realizable. Yet the

¹⁰⁶ Sennett & Cobb, *Hidden Injuries*, p.271.

ambiguity of their identity in Cuba prevented them from ever really 'belonging', and kept them looking outside the island. Although some of them did establish families in Cuba, and many of them may have taken sexual advantage of their relative freedom in the island, the evidence suggests that the majority maintained ties of marriage and family that lay outside.

The disjuncture caused by migration opens up the possibility for individuals to redefine themselves and their relationships with others. This much has been amply shown by the foreign *maquinistas* in Cuba. However, far from manifesting a process of transcultural incorporation into Cuban society, the experience of the *maquinistas* suggests that a somewhat different process was at work. Certainly they were changed by the experience. There are signs that they assumed something of the dominant culture that surrounded them. In a society still premised upon the continued existence of slavery, in which it was normal for even relatively humble free people to own or employ slaves, many of these well-paid foreign *maquinistas* (who were often placed in positions of power over slaves) cannot have failed likewise to adopt such practice. While still employed by the railway, Ezra Dod had a slave working for him in his house:

[A] negro who states himself to be a British subject, a native of Sierra Leone from the neighbourhood of which colony he was kidnapped on board a slave vessel and brought to this Island.¹⁰⁷

These migrants, coming from countries in which racial prejudice was becoming strengthened during the mid-nineteenth century, found themselves in a situation that, far from counteracting such influences, was likely to enforce them. Edward Hodge was very proud of his dog, which, he claimed:

was gifted with great racial discrimination. No Chinaman dared show on the step, negroes were passed under great surveillance, decent white people were freely admitted.¹⁰⁸

As has been shown, the foreign *maquinistas* had a tendency to ally themselves with elite white groups. At the top of the Cuban hierarchy were the Spanish colonial aristocrats. Edward Hodge revealed a clear preference for this group, and aspired to social equivalence with them, for all that his background and origins realistically

¹⁰⁷ Letter from Turnbull to Tolmé, Havana, 26th September 1841 (PRO, FO 84/358, no.59).

¹⁰⁸ Hodge, *Reminiscences*.

precluded this. It led him to dismiss those who rose up against Spanish power as “almost exclusively disaffected half-breeds and slaves who had been compelled to join the rebel ranks”. In contrast, he could not “speak too highly of the kindness and hospitality of the Spanish Planters, that is the true Spaniards”:

[H]e is a fine, courteous, chivalrous gentleman. He may have a trace of Quixotism, never mind, he is a fine fellow, for whom I have a great respect.

He clearly felt that they showed to him and his kind a similar respect:

English families required no invitation to visit the Haciendas, we often came unannounced, and the longer we remained the greater we felt was the pleasure we gave our host.¹⁰⁹

Some *maquinistas*, such as Henry Emerson, were able genuinely to aspire, through their acquired wealth and property, to equality with this elite. However, the attempt by *maquinistas* such as Hodge to claim a common identity with the Spanish and Creole elite, while continuing to depend upon the latter’s patronage, perhaps reveals more of the lack of connection felt by them with Cuban society as a whole. They were outsiders maintaining a tenuous social and cultural grip on their surroundings that rarely moved beyond that of the terms of their employment.

For all that Cuba formed a part of the same world from which the migrants came, there was much about it that was alien to them, and far from diminishing with experience, the nature of their relationship with Cuba and its society was more likely to increase their alienation. The same Edward Hodge, who appeared to be so much in thrall to his Spanish social betters, nevertheless likened them to “human coral insects”. An interesting comparison, considering how alien most humans consider insects to be, as something utterly different and incomprehensible to us:

Where located, they build, promptly, and with a view to endurance. The Spaniards, on a new settlement, are said to build at once, and simultaneously, a fort, a theatre or bullring, and a church. Englishmen also have their predilection, but their idiosyncrasies differ. They lay out a racecourse, a cricket pitch, and a club, but it must be admitted, in all fairness, the church follows!¹¹⁰

Hodge’s apparent claim to Englishness itself reveals an idealisation, premised on upper class English identity, that was itself alien to Hodge and other *maquinistas*. He may have found it convenient to claim the status perceived as attaching to an

¹⁰⁹ Hodge, *Reminiscences*.

¹¹⁰ Hodge, *Reminiscences*.

Englishman, but the mythical terms on which he did so perversely demonstrate the ambivalence of ethnic identity experienced by such migrants. Neither one nor the other, cut loose from his society of origin while denied full access to that in which he found himself, Hodge was free to build an illusory identity around himself.

The exotic background of the Cuban countryside lent itself to such fantasy, above all for working class migrants escaping from the drab surroundings of Northern industrial centres. Their very isolation and loneliness facilitated this. The lack of social relationships experienced by them, combined with the freedom of work and movement that their position offered, enabled them to paint a romantic picture of themselves and their lives. James Herring described how:

One of my Sunday pleasures was walking thru [sic] the woods, getting some of the wild fruit and seeing the birds of beautifully colored plumage that abounded there. Then sometimes we would ride horseback to the interior to visit a sugar plantation or a coffee estate and all the sugar ...and Coffee and Cacoe [sic] from which our chocolate is made, growing.¹¹¹

This was possibly what was so attractive for the long-term *maquinistas* based there: the freedom to ride about a pleasant land, with beautiful natural surroundings, in jobs that gave them the opportunity to be masters, and to hobnob with gentry. However, while they may have become familiar with their new circumstances, there was little about those surroundings that encouraged them to feel it to be anything other than strange, albeit at times a pleasant strangeness, in which some were happy to sojourn for extended periods. Donald McIntosh, while in prison in 1844, had evidence given in his defence by José María Calderón, a mason on the sugar estate where he used to work. When asked if McIntosh had ever spoken with him about a possible slave uprising, Calderón responded that not only had they not spoken on this subject, but he had never seen McIntosh in any kind of intimate relationship with anyone, on or off the plantation.¹¹² Yet despite this evident alienation on the part of McIntosh, he was still working in Cuban sugar mills at least eight years later,¹¹³ showing no more sign of integration into Cuban society as anything other than a foreign *maquinista*. In 1851, he, along with three others arrested during the *Escalera* investigation, wrote to the British

¹¹¹ Herring, *Diary*.

¹¹² ANC, CM 51/1, pp.112-114.

¹¹³ ANC, GSC, 1285/50242.

government seeking their intercession with the Spanish to secure compensation for their earlier imprisonment.¹¹⁴

This is not to say that such migrant *maquinistas* were not changed by their experience. However, the change was more in the direction of becoming 'foreign', in a way that they were not when setting out upon their migration. The experience of most of them in Cuba actively encouraged this development of a foreign identity: the society in which they found themselves defined them as such, at times antagonistically. But they themselves also had much reason to affirm such a view of themselves. After all, their position and potential fortune in Cuba was dependent upon their being not simply *maquinistas*, but foreign ones. Certainly Edward Hodge became stereotypically so, assuming an English identity (despite his Cornish origins) that were almost cartoon-like. The racist dog he was so proud of was, of course, a bulldog.¹¹⁵

In time there was an increase in the number of native *maquinistas*. Despite this, even in the practicalities of the workplace differences were asserted by foreigners and Cubans alike. This can partly be seen in the language used, in which technical terminology, far from being shared by the two groups, served to set them apart. For example, the housing of the milling machinery was known by the British and North American *maquinistas* as the 'mill cheek'. But the Cubans, rather than choosing a word that was some kind of translation or equivalent, called the piece the *virgen* (virgin):

An incongruity that, like so many others of similar origin that is quite beyond human comprehension unless we ascribe it to that excess of piety that so often adorned their streets and alleys with the names of all the saints of the calendar.¹¹⁶

Though being a foreign *maquinista* could prove to be an advantage in the job market, and this seems to have been an identity worth cultivating, on occasion it had a negative effect. Ezra Dod left his railway job to work on the plantations, not of his own volition, but because "his contract expired":

The company, of course wished to renew it, but the Governor General claimed that it was too important a position to be held by a foreigner

¹¹⁴ Letter from Crawford to Palmerston, Havana, 23rd October 1851 (PRO, FO 72/793, no.55).

¹¹⁵ Hodge, *Reminiscences*.

¹¹⁶ James H. Dod, 'The Development of the Cane Mill in Cuba', *Louisiana Planter & Sugar Manufacturer*, 11th September 1915.

...and named three good Spaniards for the Company to choose from.¹¹⁷

The *maquinistas* appear to have been particularly susceptible to this maintenance, and even hardening, of their distinction as foreigners – possibly more so than other groups of migrant workers. An official decree of 1851 demanded that all residents (whether Spanish or foreign) had to be certified through payment of a special duty, in order to legally exercise their industry, trade, commerce or profession. While the long list of occupations included *maquinistas conductores* (train drivers), it made no specific mention of the sugar mill *maquinistas*: despite the obvious importance of this group; the high salaries they were earning which it might have been thought that the authorities would want to tax in some way; and its coinciding with the desire by the authorities to keep a watch on the movement of the foreign *maquinistas*.¹¹⁸ This apparent exemption from obtaining a licence to practice, though saving them the trouble of paying and providing them with a possibly welcome invisibility from the authorities, also had the effect of emphasizing that they were not considered to be genuinely resident in the country. They were transients, and the authorities appeared happy to keep them that way. The matriculation of industry, commerce, professions arts and trades continued in operation at least until the start of the Ten Years' War in 1868, and the exclusion of the foreign *maquinistas* appears to have been maintained throughout. In the matriculation lists of Matanzas province for 1867, for example, even though there are many migrants, of a variety of nationalities, registered alongside the Cubans, there was just one solitary foreign *maquinista* listed: a North American Neill Guild, living in Canasí. In fact, the only other *maquinista* shown was a Spaniard, Fernando García y Feruz, living in the same town. Why these two were admitted, and not the many others who must have been present, is not clear.¹¹⁹

This exclusion of foreign *maquinistas* was not absolute. Some did manage to enter more fully into Cuban society, and even if they themselves never ceased to be seen as 'foreigners', they settled there and left progeny who would become as Cuban as any other native. Fernando Klever was married to a Cuban woman, and on his death his

¹¹⁷ James H. Dod, 'Reminiscences of Cuban Engineering', *Louisiana Planter & Sugar Manufacturer*, 7th February 1914.

¹¹⁸ Orden del Capitan General, 8th December 1851 (*La Aurora de Matanzas*, 3rd January 1852).

¹¹⁹ ANC, ME, 75/Ai.

orphaned children were taken care of by their Cuban grandparents and family.¹²⁰ Albert Harvey, working as a *maquinista* at the copper mines in El Cobre, married a woman from Santiago de Cuba – Juana Guerra. Following his death from yellow fever in 1882, his family continued to live in that city well into the twentieth century, remembering the British antecedent, but with little doubt as to their Cuban identity.¹²¹ Although the family of Robert Waugh, a *maquinista* from Durham who worked at times in the Cuban plantations and died during a rebel raid in the Ten Years' War, divided their time between New Orleans and the island, one of his daughters settled in Cárdenas, becoming a prominent early pioneer of the Presbyterian Church in Cuba.¹²² In all these cases, their entry into Cuban society came about not through their mere presence, but through marriage ties.

But the evidence would suggest that the vast majority of the *maquinistas* did not form such a bond. As has been seen, many of them were already married, and frequently their wives and families remained outside the island. Although Charles Edmonstone lived and worked in Cuba for more than twenty years, where he became quite a success, his wife does not seem ever to have joined him there, but continued to live in New York.¹²³ Although John Caldwell died in Cuba, his offspring were divided between Baltimore and Liverpool.¹²⁴ Samuel Evans, who appeared originally to have abandoned his wife in Britain, and disappeared into the Cuban hinterland, rather than establishing an entirely new life for himself, later reappeared in order to be rejoined by his wife.¹²⁵

Even when a *maquinista* was single on arrival in Cuba, and lived there for many years making such a success of his life that he would have been considered highly eligible marriage material, there was a tendency to look for wives either outside the island, or from within the resident migrant community. Henry Emerson married the daughter of a British merchant in Sagua la Grande (Jane Harris Bellin), who eventually settled back in Britain with her second husband (interestingly a former machinist,

¹²⁰ ANC, ES, 178/2463.

¹²¹ Personal communication from Guillermo Luis Pérez del Castillo (great grandson of Harvey), 8th August 2001.

¹²² Personal communication from Jorge Piñon (great great grandson of Waugh), 2nd September 2001.

¹²³ Letter from Mrs Edmonstone to Moses Taylor & Co, New York, 9th May 1861 (MC, MF, 234/28/4).

¹²⁴ Letter from Crawford to Russell, 2nd October 1862 (PRO, FO 72/1041, no.37).

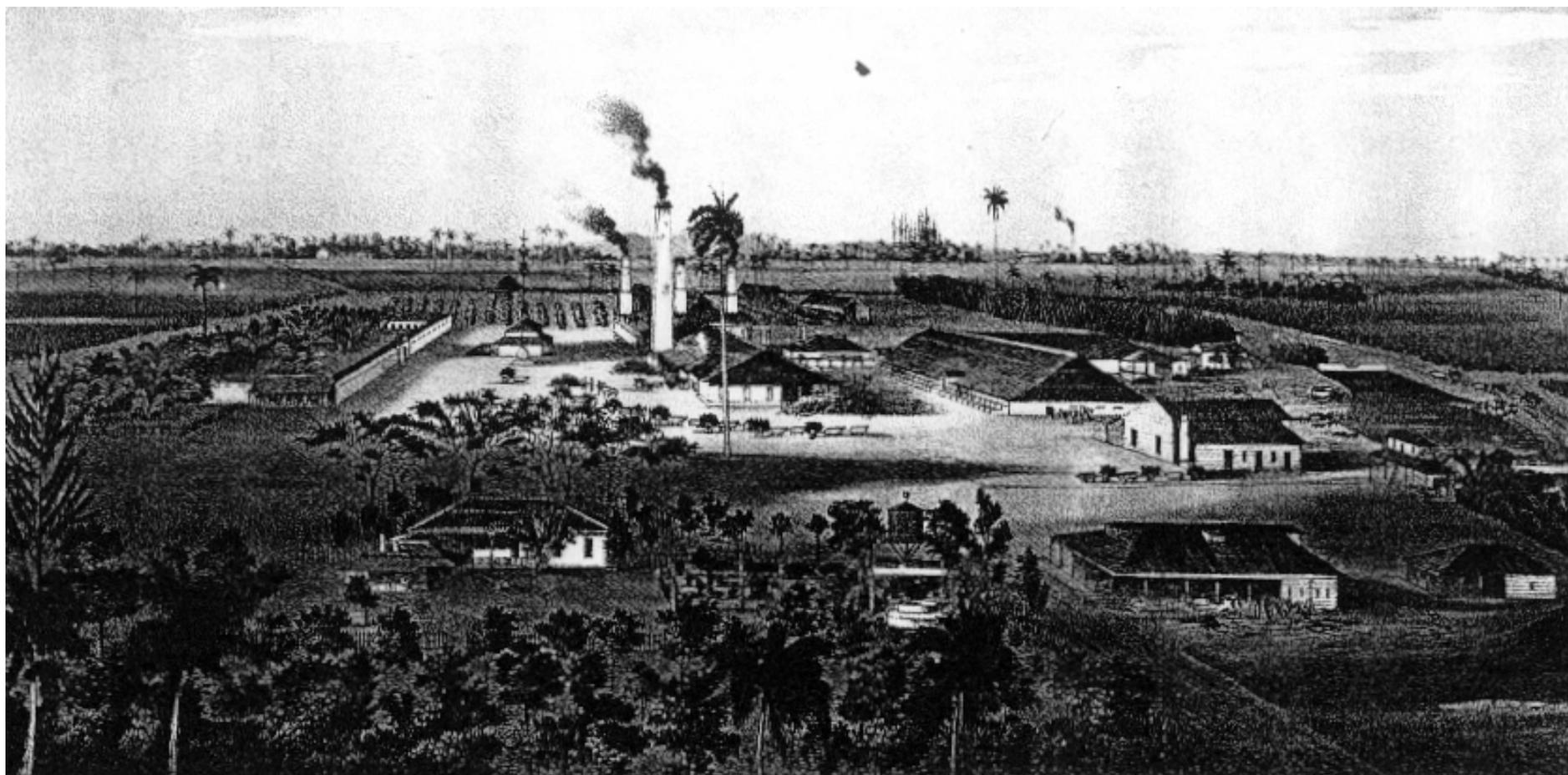
¹²⁵ Letter from Crawford to Malmesbury, 1st July 1858 (PRO, FO 72/944, no.36).

turned administrator, from the Emerson's estate), as did their children.¹²⁶ Ezra Dod, despite spending most of his working life in Cuba, never relinquished his North American identity, and though his progeny likewise lived and worked in Cuba (in 1915, James H. Dod, presumably Ezra's son or grandson, was writing defences of his progenitor's contributions to engineering from Santa Clara), they had no reason to see themselves any differently.¹²⁷

Thus, while the foreign *maquinistas* in Cuba did undergo changes in their identity and situation as a result of their migration, transculturation, as it is generally understood, cannot really be said to have occurred. Encouraged to define themselves as foreign for employment reasons, this was also thrust upon them by their identification as Others by Cuban society. Rather than reacting by seeking ways to incorporate themselves more fully within that society, in most cases they came to assume a much more strongly asserted sense of their foreignness. If their ethnic identity had begun as ambiguous, with time it became more strongly asserted – only as something that was ultimately very different from whatever ethnic identity they may have brought with them. While it may have manifested itself as a caricature of their national origins, underlying this was an identity shared between them – that of being simply foreign. It was this that enabled some of them to rise above their class origins, making a success of themselves that would have been next to impossible had they not migrated as they did. But even success does not seem to have led them to be seen, and to see themselves, as anything other than distinct, separate, and often very isolated from Cuban society as a whole.

¹²⁶ BL, HEE, MSS Span b.1.

¹²⁷ *Louisiana Planter & Sugar Manufacturer*, 7th February 1914 & 11th September 1915.



XIII - The 'Tinguaro' sugar estate (c.1857)
(Source: Cantero, *Los ingenios*, 1857)

CHAPTER SEVEN

THE CATALYTIC INFLUENCE OF THE *MAQUINISTAS* IN CUBA

Josefina Plá, in her study of British engineering workers in Paraguay in the nineteenth century, suggests that despite the tendency for these migrants only to socialise with each other, and only engage with Paraguayan society through their professional duties, they nevertheless had a profound influence upon Paraguayan culture. This was partly the result of new fashions they were responsible for introducing. Without them, there would have been no beer, nor certain items of domestic comfort. Thanks to them, styles of dress changed, with the example of their use of hats with crowns, embroidered waistcoats and patent leather shoes. But it was also due to the example of their behaviour:

These men were carriers of a social culture, of ways of intercourse, of nuances in personal relationships and attitudes to life which were bound to make themselves felt.¹

There were important similarities between these migrant workers, and the *maquinistas* in Cuba. They were both clearly identifiable groups of outsiders, who did not succeed in merging with their host society. Yet despite this, and not through any conscious agency on their part, they had a profound effect upon that society, changing the path of its development. This chapter argues that such migrant groups have what can be termed a catalytic influence. It was not because of British engineering migrants that Paraguayans began to drink beer, nor to dress differently. They were not actively seeking to start new fads, nor change Paraguayan culture, and appear to have had minimal direct involvement with local society and culture. But thanks to their taste for this beverage, and the dressing habits they brought with them, these began to appear in Paraguay – imported by, or because, of them initially, but adopted by others through the passive example they set. The same would hold for the values and ways of relating to others that they displayed.

The catalytic role of the foreign *maquinistas* in Cuba is here explored through two case studies. In the first, their presence stimulated attempts at training native workers with the skills required to perform the tasks of *maquinista*. In the second, their role in

¹ Plá, *British in Paraguay*, pp.183-8.

the events of the *Escalera* conspiracy is dissected. It will be argued that although they were found innocent of conspiracy, their presence played a significant part in the development of the social tensions that led to the explosion of 1843/44. The chapter concludes by pointing the way towards a theorisation of this effect.

Influence on Cuban labour

With the foreign *maquinistas* playing such an important part in technological developments, from which Cuba and its sugar industry clearly benefited, it might be expected that their presence would have been seen to have a beneficial influence upon Cuban society, and in particular upon the island's working class. However, such wider influence as they had emerged more out of a reaction to their presence, than from a straightforward positive effect of their good example. Certainly Cubans were encouraged to take up the trade themselves, and to obtain the necessary training, but the foreign *maquinistas* seem to have played small part in this beyond providing the stimulus for it to occur. Not only did they continue to be outsiders within Cuban society, but that society sought to remove from them the necessity for their presence.

Of course, there were those who appreciated their presence, at least in the first few years; and on whom the evident advantages they offered to Cuba were not lost. In 1838, Francisco Diago commented to a North American associate that it "suited all of them that there should be abundant *maquinistas* in the Island".² Others echoed such sentiments, presenting an optimistic picture of what such foreign workers might do for the country. Francisco de Paula Serrano declared in 1839:

Small matter that they be foreigners who at present direct the machines; my principles are not founded on such absurd nationalism.³

Such support was not simply because of their technological contributions, but also because they were white. Paula Serrano went on to argue that "it is beneficial for us to acquire individuals that augment the quality [*guarismo*] of our white population".⁴ They were seen as playing an important part in the project of whitening

² Letter from Francisco Diago to Henry A Coit, Madruga, 24th April 1838 (BNJM, Lobo 109/3) - my translation.

³ Francisco de Paula Serrano, memorial presented to the Sociedad Económica (1839) (*Memorias de la Sociedad Económica*, Tomo IX, 1840, p.240) - my translation.

⁴ Paula Serrano (1839) in *Memorias de la Sociedad Económica*, Tomo IX, 1840, p.240 - my translation.

the Cuban population (and in particular the working class). In a culture in which manual labour was looked down upon by many whites, who felt it demeaning to be engaged in work more generally performed by non-whites, the *maquinistas* helped to make it respectable to get your hands dirty. Although their work was highly skilled, it could also be quite physically demanding, and the example of the foreign *maquinistas* was used by campaigners for white colonisation to demonstrate that whites were perfectly capable of quite strenuous employment in the tropics:

[W]e constantly see English and North American *maquinistas* running locomotives by day and night. Not the sun, nor the weight of the load, nor the most violently active exercise, nor the coasts and its unhealthy marshes, nor the salty and corrosive sea air, nor the hardest of tasks executed through the action of the most intense of fires, can put off these men, many of whom reach old age healthy and robust.⁵

On top of this, they were exceptionally well paid, and this more than anything demonstrated just how respectable this was as a career for a young Cuban. It became a valued prize to secure an apprenticeship in a North American foundry, and even attracted the sons of quite well placed families. Indeed, this was almost a prerequisite, since to be successful required having influential contacts that the humbly born were unlikely to possess. In 1841, Pedro Diago wrote to Henry Coit in New York, requesting him to help the son of a friend of his obtain an apprenticeship in the West Point Foundry:

The boy is a Hercules, of very good character, and already knows the principles of drawing and mechanics, he can speak languages and his Father wishes to inscribe him for four or five years.⁶

Apprenticeships cost money. In the late 1850s, it cost between \$20 and \$30 a month for a Cuban to be placed with a North American engineering firm.⁷ Thus, those who sought advancement in this way had either to be from reasonably well-off families, or have a wealthy sponsor – who no doubt would expect to have the advantage of the newly trained *maquinista's* services upon his return. Eduardo del Camino helped one

⁵ *Informe de la Comisión nombrada por la Junta de Agricultura, Industria y Comercio de Matanzas, sobre Colonización blanca y division del trabajo en nuestros ingenios...*, Matanzas: Imprenta de la Aurora del Yumurí, 1864 - my translation.

⁶ Letter from Pedro Diago to Coit, Ingenio Sta Elena, 14th August 1841; also Havana, 10th December 1841 and 7th June 1842 (BNJM, Lobo 111/1).

⁷ BNJM, Lobo 135/2.

young man, by the name of Yriarte, to obtain an apprenticeship in New York, providing him with references:

The young Yriarte is said by all who know him to be the quietest and most industrious young man they know, so I am certain you'll have no [sic] to be sorry of having recommended him.⁸

The foreign *maquinistas* seem to have sometimes played a role that went beyond a passive good influence in such attempts to enter the trade. In 1851, O. J. Reynolds (Francisco Diago's *maquinista*) travelled to the United States, as he often did not merely to spend the summer but also to run engineering-related errands for his employer. On this occasion, he did not travel alone, but took with him a protégé of Diago, José Santurio y Toledo, who wished to become a *maquinista*. Though he carried letters of recommendation with him for Diago's commercial contacts in New York – requesting them to use their influence to secure an apprenticeship in the West Point Foundry – that he travelled with Reynolds, who also worked as an agent of the West Point, no doubt did more than anything else to provide him with a foot in the door.⁹

With so many foreign *maquinistas* working in the island, it would have been more logical if apprenticeships could be served directly with them, without any need to leave the country. However, there seems to have been considerable resistance amongst the foreigners to take such a responsibility seriously, despite official attempts to enforce it. The *Sociedad Económica* of Havana (which oversaw many of the economic and infrastructural improvements of the period) felt that foreigners opening workshops to exercise their trade in Cuba should be obliged to take on local apprentices, to teach them that trade – and there was growing resentment that many of them declined so to do.¹⁰ In 1843, the Governor of the island asserted:

From when a foreigner comes to this Island, opens his workshop, and exercises an art or trade with a Government licence, he is bound by the same duties that bind natives of the Spanish dominions.¹¹

Often the resistance was persistent, and even after having been given repeated warnings, many foreign workshop owners stubbornly refused to take on apprentices

⁸ Letter from Eduardo del Camino to Moses Taylor & Co, Constancia Estate, 11th December 1858 (BNJM, Lobo 135/1).

⁹ Letter from Francisco Diago to Coit, Havana, 17th April 1851 (BNJM, Lobo 109/3).

¹⁰ *Memorias de la Sociedad Económica*, 1843 (2), pp.7-9.

¹¹ Letter from Gerónimo Valdés to Sección de Industria y Comercio, Sociedad Económica, Havana, 10th March 1843 (in *Memorias de la Sociedad Económica*, Tomo XVI, 1843, pp.8-9).

that they had no wish to train.¹² This was a trade with a long tradition of craft-exclusiveness, access to which was often closely guarded, and so forcing them to take apprentices was no way to guarantee the transmission of their skills to the native working class. Juan Angel Echerri discovered this on being apprenticed to the machine workshop of the foreign *maquinistas* Keen and Lochkurd in Cienfuegos. He spent four years in the workshop, in which time his foreign masters paid little attention to his education in the trade, using him and others as little more than cheap labour:

In three years ...I had no holidays and they even forced me to work many nights without recompense of any kind, not allowing me time even on the most solemn days to attend mass...

They finally refused to award him with the title of *maquinista*, in their words because he “was a blockhead incapable of learning”, though it would seem that in fact they had simply not bothered to train him in the necessary skills.¹³

Such intransigence fed a growing opposition to their presence in Cuba, augmented by jealousy of the privileges extended to them, and paranoia of the possibly detrimental political and cultural role that they were thought to be playing. In 1852, the Governor reported to the Spanish government:

The youth of this country either leave in search of not very rewarding education or they dedicate themselves to literary careers or they remain in idleness, or they deliver themselves up to precarious occupations. At the same time the development of sugar production, one of the principal Sources of the wealth of the Island, is a wide and rewarding field in which a large part of the youth could find work and utility, as *maquinistas* in the mills and railways; places that are today found served in general by more than 600 foreigners who do not much promote good ideas in the country, and which it would be convenient to get rid of.¹⁴

Partly as a result of such sentiments, attempts were made to establish specialist schools in the island to train indigenous *maquinistas*. By so doing it was hoped to end the skills shortage that had made the immigration necessary in the first place.

The first suggestion for the establishment of a *Maquinistas'* School came in the late 1830s, not long after the immigration of foreign *maquinistas* had begun in earnest.

¹² Letter from Secretaria de Industria y Comercio (Sociedad Económica) to Gerónimo Valdés, Havana, 4th May, 1843 (in *Memorias de la Sociedad Económica*, Tomo XVI, 1843, pp.228-229).

¹³ ANC, GSC, 1608/81938 (my translation).

¹⁴ Letter from Captain General to President of the Consejo de Ministros, Havana, 10th April 1852 (AHM, UCF, 30/2, no.32) - my translation.

In a memorial presented to the *Sociedad Económica*, Paula Serrano argued that there was:

[a] necessity to propagate that knowledge which is indispensable for the formation in our land, if not of veteran and complete *maquinistas*, at least those with practical knowledge, sober and expert directors, capable of driving a steam engine.¹⁵

The language used suggests that their particular concern were the train locomotive engineers. As was mentioned earlier, the presence of foreign rail *maquinistas* was particularly shrouded in scandal, not just because of their internecine squabbles, but also because of a number of prominent rail accidents blamed upon them. Since the first railway from Havana to Güines was an officially sponsored project, the authorities felt that they were able to exert their influence over the employment of foreigners in such high profile positions.

Yet most of the foreign *maquinistas* were bound for the sugar mills. Though the authorities in Havana had no direct jurisdiction over this, it was an increasing concern for them that, as more and more steam engines, mills and other high-tech equipment poured into the country's plantations, the country was finding itself not only dependent upon foreign capital, but also upon the physical presence in the island of many foreign skilled workers. They were not so concerned about the carpenters, masons, or even boilermakers who arrived. After all, these were generally paid little more than natives in similar trades. From the start, they were disproportionately preoccupied about the foreign *maquinistas*. As Cubans travelled abroad to learn the necessary skills, and returned to the island, there were attempts locally to pass on the knowledge on to their countrymen. In 1845, one such *maquinista* advertised his services, with a proposal to establish a school in Matanzas:

The desire to have schools of mechanics, as applied to the steam engines of the sugar mills and railways, is about to be satisfied. A native of Matanzas, educated abroad, where he has been a director of large establishments, and has constructed railroads, wishes to give to his homeland the precious gift of educating its sons and so free them from a foreign contribution.¹⁶

¹⁵ *Memorias de la Sociedad Económica*, Tomo IX, 1840, p.240.

¹⁶ *El Faro Industrial de la Habana*, 10th April 1845 - my translation.

The greatest efforts for establishing a *maquinistas'* school were in Havana, where the need for such specialist training coincided with the drive by the *Sociedad Económica* to improve working class education in general. On 4th July 1845, they opened an *Escuela de Maquinaria* (School of Machinery).¹⁷ Although they were only able to admit fifty students, due to the size of the building they were provided with, within a year they were boasting success, claiming that many landowners, for whom the students had worked during the year, were returning to contract them for the coming grinding season:

because they have not been able to avoid feeling heated by that holy patriotic fire that is always to be found in the breasts of the Spanish, when they so visibly perceive happy results.

It was said that three of the students, who were working as assistants on the steamboats at Matanzas, were already capable of "directing those boats with the same mastery as the *maquinistas* in their crew".¹⁸ In its first three years, the School graduated eight fully qualified *maquinistas*, "capable of directing whatever machine themselves"; a further five or six were already employed as *maquinistas*, although they had not fully qualified; and twenty titles of *practicante* were awarded to students who lacked only the practical experience to become fully fledged in the trade.¹⁹

Encouraging as this no doubt was for the patriotically minded, and important as it was as a first step in Cuba towards the development of industrial skills, the school made little real impression, at least in the short term, on the country's need for foreign workers. In the same three-year period (1845-1848), at least 116 foreign *maquinistas* applied for their domicile letters.²⁰ The latter were quite scathing of the efforts of the School:

One very grave [obstacle] has been that the opinion of the foreign *maquinistas* has constantly been opposed to [the School], and without knowing nor even visiting it, they have declared the impossibility that good operatives could be produced by an establishment that does not belong to them, and which is not in France or England but in Havana.²¹

¹⁷ *Memorias de la Sociedad Económica*, Tomo 36, 1848 (1), pp.31-34.

¹⁸ *Memorias de la Sociedad Económica*, Tomo 33, 1846 (2), p.359 - my translation.

¹⁹ *Memorias de la Sociedad Económica*, Tomo 36, 1848 (1), pp.31-34 - my translation.

²⁰ ANC, ML, 11910 & 11080.

²¹ *Memorias de la Sociedad Económica*, Tomo 36, 1848 (1), pp.31-34 - my translation.

They may have had a point. Since the numbers graduating from the School were hardly a threat to the job prospects of the foreign *maquinistas*, given the ever-increasing demand for such workers and the general shortage of them, it is unlikely that such criticism was motivated by selfish reasons. It seems that the sponsors and organisers of the School underestimated the degree of training needed to become not just a *maquinista*, but one sufficiently skilled to be able to take personal charge of the equipment of a sugar mill, dealing with all eventualities. The foreign *maquinistas* generally began their education in the trade in early adolescence. Having served an apprenticeship lasting several years, they qualified to become journeymen. Their training did not stop there. If they aspired to become masters, they not only had to work their way up the workshop hierarchy, but also obtain specialist technical education. Even though many of them may have travelled to Cuba in the hope of short-circuiting the craft exclusiveness that may have prevented them from advancement in their home countries, the average age on arrival of the foreign *maquinistas* was 31 years old.²² Supposing they had begun in the trade around the age of 14, they had thus already an average of 17 years experience before being employed in Cuba.

This was something that does not seem to have been fully appreciated. Many of the Cubans who studied in the *Maquinistas'* School, and their families, seem to have believed that "they could be, and that they are, complete *maquinistas* in a year".²³ Often driven by the prospect of the high earnings they dreamed of obtaining (and which they saw the foreigners claiming), this failure to understand the slow, incremental path of formation needed not just by aspiring *maquinistas*, but by the country as a whole in its attempt to develop the skills needed by its economy, led to a high dropout rate from the School. Not surprisingly, this provoked considerable scepticism on the part of the foreign *maquinistas*. However, by seeking to protect the standards of their craft which they saw being undercut by the School, while at the same time generally showing little interest in playing a positive role in the gradual development of native *maquinistas*, they exacerbated the feelings of hostility shown towards them, and fuelled the impulse that led to the establishment of the School in the first place.

²² ANC, ML, 11080, 11397 and 11910.

²³ *Memorias de la Sociedad Económica*, Tomo 36, 1848 (1), pp.31-34.

Nevertheless, the first years of the School saw the trickle of native *maquinistas* so trained slowly grow. In 1848, the title of *maquinista* was awarded to sixteen graduates.²⁴ However, it began to be widely recognised that the *Sociedad Económica* alone did not have the resources adequately to provide for the School's needs. In particular they faced the problem of finding a suitable place for the School to be housed, with room for expansion. As a result, the *Junta de Fomento*, the government department responsible for the economic development of the island, decided to take control:

The *Junta* will take charge of the project of expanding this Institute, helping it with funds so as to give it the elevation that it deserves.²⁵

Thus in 1851, coinciding with the heightened official paranoia concerning the presence of so many foreign *maquinistas* in the country, the *Junta de Fomento* took control of the *Maquinistas' School*, "so that it may succeed in the important and primordial objective of satisfying our local necessities without the help of foreign hands".²⁶ For the Captain General and Governor of Cuba, José Gutiérrez de la Concha, this was more a patriotic undertaking than one of economic necessity. Whereas, in its original conception by the *Sociedad Económica*, the School was intended to provide training for the brightest of the urban working class; priority was now to be given to "the orphans of military families and servants of the State, and particularly those who lost their lives and fortunes in the defence of Spain in our old American possessions." They would form a bulwark against:

more than 600 *maquinistas* nearly all of them Americans from the United States who, spread about our sugar mills and on the railroads, are a seed for propaganda in the ideas of secession, and who are internal enemies that it is essential we free ourselves from.²⁷

The implication was that far from encouraging the development of a strong Creole economy, the new policy would principally benefit not the Cubans but the Spanish. Rather than being led by those whose principal objective was to see the economic advancement of Cuba, it was taken over by those who were blinkered by short-term political concerns.

²⁴ *Memorias de la Sociedad Económica*, Tomo 37, 1848 (2), pp.169-173.

²⁵ *Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana*, Tomo III (July – Dec 1850), p.4.

²⁶ Memorandum sent from Rafael Matamoros to the President of the *Sociedad Económica*, Havana, 6th January 1851 (AHN, UCF, 30/2, No.32).

²⁷ Letter from José Gutiérrez de la Concha to the Spanish 1st Secretary of State, Havana, 9th June 1851 (AHN, E, 8044/7) – my translation.

The change was a disaster. The School moved away from the modest planting of seeds whose fruit the country would be able to gather at some point in the future, gradually improving the foundation of skills upon which the island's economy could be developed. The new directors attempted to turn it into a "large industrial enterprise." Rather than simply providing subsidised training for those who would go to work in the mills and railways, teaching them the theory that they would put into practice in their employment; expensive foreign machinery was purchased, and the students turned into apprentices, learning quite advanced applications of steam technology through construction. While the result was a workshop of which the State could be proud, this attempt to rival in Havana the great foundries of the United States, Britain and France was doomed to failure. The School had originally been started with the simple project of providing whatever training was necessary for native *maquinistas* to replace the foreigners. They now found themselves saddled with an institution which wished both to provide highly trained technicians, and produce its own machines at the same time: and to do so overnight, without the pre-existing industrial infrastructure and skills base that the industrial metropolises possessed.²⁸ When it became clear that the School would not become self-financing, as had been hoped, but a serious drain on resources with minimal benefits to show; and as xenophobic paranoia waned, with the defeat of the attempted invasions of the early 1850s: the Spanish State quickly lost interest. In 1855, the School's budget was slashed in half and direction returned to the *Sociedad Económica*, which was left to pick up the pieces of the failed experiment.²⁹

Far from freeing Cuban planters and rail companies from the necessity of contracting foreign *maquinistas*, if anything the School accentuated the reliance on these outsiders. Although by the 1850s there was a small but growing number of suitably skilled natives, they were not sufficient to meet the increased demand for such workers as the use of steam engines and mills became not only generalised, but extended, with the sugar frontier pushing inexorably eastwards. The debacle of the *Maquinistas'* School experiment was unlikely to inspire confidence amongst the majority of planters, who were driven more by economic than patriotic concerns, and were anyway more

²⁸ *Memorias de la Sociedad Económica*, Tomo 46b (1855-59).

²⁹ *Memorias de la Sociedad Económica*, Tomo 45 (1855-56).

likely to be prejudiced in favour of employing 'superior' foreign technicians. Just as their foreign-built engines and mills held pride of place in their plantations, with their power shown off to visitors, so employing a foreign *maquinista* was also not just a necessity, but something of a status symbol. They may have been able to pay a native *maquinista* less for the same job, but most were happy to pay a premium to ensure foreign quality, leaving the Cuban *maquinistas* to find employment in the poorer plantations.

But the island's reliance on foreign *maquinistas* continued to rankle. In 1857, the *Compañía Española de Fundición y Mecánica* (Spanish Foundry and Machine Company) was formed. Its founder argued that:

The establishment of this Society is evidently useful and even necessary because in the material of Foundry and Mechanics we depend on foreigners imposing the law.³⁰

The following year, Manuel Hernández Aranda invented a sugar train that he advertised as being specifically 'Cuban' (See Illustration XIV). His application for a patent and privilege for his invention reads more like a nationalist treatise, than a blueprint for a contribution to technology:

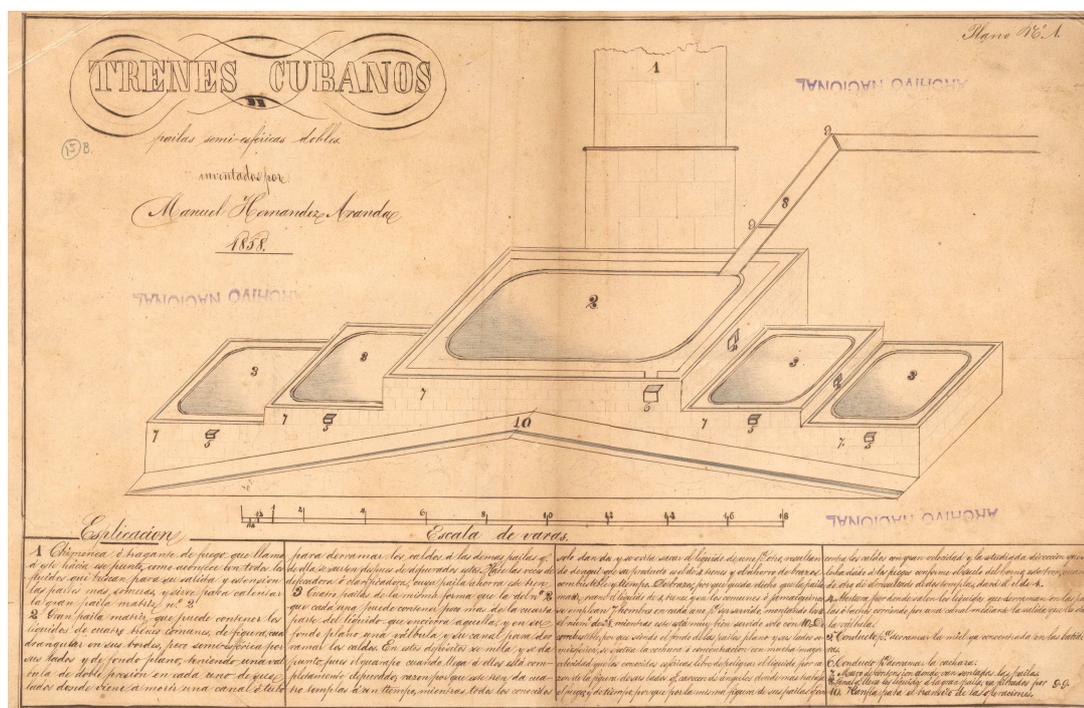
Our emerging agriculture demands a great help so as to remove it from that rachitic state in which it finds itself, and to elevate it to its peak, given that, without the necessity of begging from foreigners, there exists in our country extraordinary elements with which to achieve this.

Showing the same excess of patriotic optimism that had doomed the *Maquinistas'* School to ineffectuality, Hernández Aranda believed it possible for Cuba not only to be on the same level as the industrial countries, but even to rival and surpass them, and all that they would need was the desire to do so. However, amidst such dreaming, he did identify an important problem:

I have been a witness to the little or nothing with which the exigencies of our planters have been satisfied, who no sooner has a novelty been introduced, stamped with a useful character because of mere public recommendations, than they have run precipitously to put it into practice.

³⁰ Memorial from Ambrosio Tomati to Captain General, Havana, 12th August 1857 (ANC, GSC, 1594/81606) - my translation.

As a result, often “exorbitant sums” were spent, out of a desire for aggrandisement, for machinery whose actual usefulness in the Cuban context was questionable. As a result of these “frequent disenchantments”, there had developed a tendency to look on things with “a more practical eye, and a large dose of distrust”.³¹



XIV - The 'Cuban Sugar Train' of Manuel Hernández Aranda (1858)

(Source: ANC, MP, Privilegios 17159)

To include the foreign *maquinistas* in this distrust was not entirely justified. As has been seen, they played an important role in influencing the direction that technological developments took. As a result of their experiences working in Cuba, they relayed back to the engineering companies the changes that were necessary for the machinery to be fully responding to the island's needs and circumstances, and in some instances were themselves contributing with their own inventions. However, since they were often acting as agents for the very engineering companies that Cuban planters were so dependent upon, and whose expensive machinery was one of the principal causes of Cubans gradually losing control over their land and industry, the foreign *maquinistas* were perceived as being complicitous. Add to this their failure to incorporate into Cuban society (and Cuban society's continued definition of them as

³¹ ANC, RCJF, 207/9310 - my translation.

outsiders), and it is not hard to see how they became symbolised as the incarnation of Cuba's economic and political problems.

These were skilled industrial workers, products of societies with strong working class movements in which workers such as themselves often played a prominent role. It might be thought that they would have played an important part in the development of the Cuban working class. Not only did they bring important skills to the island, they also came from a context of industrial militancy and trade union organisation. One of the first recorded industrial strikes in Cuba's history involved foreigners. In 1843, a number of miners working in the copper mines near Santiago de Cuba went on strike in protest over their wages and conditions:

Their example has already induced two others to strike under the same pretences, men who have worked peaceably with us for a year. We have many others, who if they saw those characters receive your protection ...might also be led to imitate them.

Although they do not seem to have had an influence beyond the ranks of their fellow foreign miners, the threat that they might do so was taken very seriously. They were imprisoned, and when they continued to refuse to accept the terms under which they were employed, they were summarily deported from the island.³²

However, the *maquinistas* did not present such an obvious danger to labour relations. Far from providing a positive influence in the development of the Cuban working class, just as the training of native *maquinistas* was stimulated by a reaction against the presence of these foreigners, so too the Cuban labour movement took a step forwards as a result of their negative reaction to the foreign *maquinistas*. Thus one of the first Cuban trade unions to be formed was that of the Spanish Steam Engine *Maquinistas'* Society, in 1850.³³ This union was formed in such a way as to overtly exclude foreign *maquinistas* from its ranks. Rather than a simple transferral of skills, or development of an indigenous working class consciousness, occurring through the interaction of these migrants with their native counterparts, the presence of such outsiders in Cuba provoked a negative response, which ironically had the same effect. But it was at the same time a highly ambiguous effect. For although more Cuban *maquinistas* were trained, the failure of the *Maquinistas'* School made them more

³² Letter from James Treweek to Charles Clarke, El Cobre, 23rd April 1843 (PRO, FO 72/634, no.37).

³³ Casanovas, *Bread, or Bullets!*, p.67.

dependent upon obtaining training either outside Cuba, or from the foreign *maquinistas* upon which the country continued to rely (in spite of their nationalist reservations). The unionisation of the native *maquinistas*, prompted by a nationalist reaction to the foreigners, caused them to define themselves much more clearly as 'Spanish', and hence went against the development of a distinctly Cuban national identity, and helped tie such workers into a closer relationship with the colonial political elite.³⁴

The influence that the foreign *maquinistas* had on the development of an indigenous skilled working class was a relatively straightforward one. It seems to have been the specifically national part of their identity (that is, they were foreign) that provoked a response from a number of social groups (both hegemonic and excluded), leading them to attempt to develop the island's skills base in such a way as to make their reliance upon this alien group no longer necessary. It also stimulated an anti-foreign stance by the few indigenous *maquinistas* that existed. This also had a positive effect, despite its negative impulse, since it led to the formation of one of the island's first proto-trade unions. This was something that occurred because the migrant *maquinistas* were there, but in which they manifestly were not themselves agents.

The *maquinistas* and the Escalera

The example of the *Escalera* conspiracy and trials, in which the *maquinistas* had a role forced upon them, is rather more complex. The events of 1843 and 1844 can be described as involving four stages: first, the intensification of three already existing social divisions (around slavery, race and nation); second, the development of these as struggles (or potential struggles) against the power structures of the island; third, defeat of these struggles by the Spanish authorities; and fourth, the advantage taken by the success of the latter to try to harden (and make more secure) the social divisions that had led to the attempted uprising in the first place. For all that some *maquinistas* were caught up in the repression of 1844, and spent several months in prison, they were all eventually released, and it does seem that they were more than likely innocent of any direct involvement in the conspiracy. However, it can be shown that they were not simply, as Robert Paquette suggests, in the wrong place at the wrong time, collateral damage in events beyond their control.³⁵ At each of the four stages (and

³⁴ See Casanovas, *Bread, or Bullets!*

³⁵ Paquette, *Sugar is Made with Blood*, p.234.

within each of the three social divisions that provided the dynamic for the *Escalera*) the *maquinistas* played an important catalytic role, that was itself the cause of their arrest.

Of all the social divisions that existed in mid-nineteenth century Cuba, three were of particular importance in defining political and social instability. Although the divide between free and slave labour was not as hard as has often been presumed (but in fact was considerably blurred in many respects),³⁶ the institution of slavery, upon which much of the economy depended for labour, nevertheless resulted in a powerful underlying tension. On the one hand, there was the understandable discontent of the hundreds of thousands of slaves forced to live and work in bondage, in many cases having been kidnapped from their homelands. On the other hand, this discontent generated a fear in particular amongst elite whites, whose wealth and comfort depended upon the slaves. They were terrified of the possibility of a slave uprising, and of Cuba's becoming another Haiti.³⁷ Although there were some who argued that the only solution to this would be the ending of slavery, the general response was to harden racial divisions, in an attempt to assert control through repression over not just the slaves, but also the free coloureds.³⁸ The latter were perceived as being a continual threat, since they stood as an example and stimulus to the slaves, showing them through their socially upward-mobile lives what freedom might hold in store for them. This coincided with the growing tension that was increasingly threatening to tear the ruling class apart: that between the Creole and Spanish white elites.

Though discontent on the part of the slaves was the result of a system of labour and domination over which the *maquinistas* had no control, the profound effect that the work of the *maquinistas* had in Cuba had repercussions that went beyond just

³⁶ See, for example: Scott, *Slave Emancipation*; Turner, *From Chattel to Wage Slaves*; and Casanovas, *Bread, or Bullets!*.

³⁷ Anthony P. Maingot, 'Haiti and the terrified consciousness of the Caribbean', in Oostindie, *Ethnicity in the Caribbean*.

³⁸ In 1812, events occurred that were remarkably similar to those of the *Escalera*, albeit on a somewhat smaller scale. Then too, a series of slave uprisings culminated in the uncovering of a conspiracy to bring about a general rebellion. As in the *Escalera*, it was alleged that the leader of the plot – the free, black carpenter, José Antonio Aponte – had promised his followers external military assistance: not from Britain, in this case, but from the newly independent black republic of Haiti (Matt D. Childs, 'The Aponte Rebellion of 1812 and the Transformation of Cuban Society: race, slavery and freedom in the Atlantic World', PhD thesis, University of Texas at Austin, 2001; Matt D. Childs, "'A Black French General arrived to conquer the Island': images of the Haitian Revolution in Cuba's 1812 Aponte Rebellion', in David Geggus (ed.), *The Impact of the Haitian Revolution in the Atlantic World*, Columbia, SC: University of South Carolina Press, 2001, pp.135-56; José Luciano Franco, 'La Conspiración de Aponte, 1812', in Franco, *Ensayos históricos*, pp.127-90.

improving the island's sugar industry, infrastructure and economy. It also had an effect that was perceived as detrimental by many enslaved plantation workers. With increasing production, their workload increased, particularly since there continued to be a chronic labour shortage in the island, itself made worse by the greater capacity. This was caused not only by the introduction of steam power, but also other improvements that speeded up the rate of sugar manufacture, and the quantity that could be processed at any one time. This meant that by the mid-nineteenth century, slaves on many of the plantations (and particularly the largest, and most technologically advanced ones) had experienced a serious decline in the quality of life and working conditions. It had become common, for example, for slaves to get no more than four hours sleep a night during the six months of the grinding season.³⁹ This played an important part in intensifying their discontent.

The mere presence in their midst of these skilled foreign workers also helped to stimulate discontent with their lot. The *maquinistas*, for all that they were socially dominant in the sugar mill, nevertheless worked alongside the slaves, some of whom began to be trained in the work involved in the running of the engines and other machinery. Either through their active encouragement, or simply in the imagination of the slaves, they seem to have suggested the possibility that one day, should they obtain their freedom, they too might be able to be *maquinistas*.⁴⁰ Given the privileges that this would bring, it would have been a powerful incentive to any slave to seek to improve his situation, whether through manumission (a distant possibility for most) or rebellion. At the same time, the presence of this elite of slave artisans in plantations in which the vast majority were consigned to be beasts of burden in the fields also intensified discontent.

In the early 1840s, none of the foreign *maquinistas* had been living in Cuba for long. Coming as most did from the industrial cities of Europe and North America, they brought with them political opinions that, at the time, included popular abolitionism, and an awareness of the injustice of being forced to work in chains. On several occasions McIntosh had told one of the slaves in the mill where he worked that "the white Spanish of the island weren't worth anything, since with dagger and

³⁹ José Gutiérrez de la Concha, 1855, in AHN, UCF 35/151. See also Moreno Friginals, *Sugarmill*, pp.144-8.

⁴⁰ ANC, CM, 51/1, pp.84-85.

machete they weren't afraid to tackle them, and that the blacks were fools for putting up with so much whipping", and had continually advised him and others to rise up against the whites.⁴¹ Not that the slaves needed foreigners to plant the idea of freedom in their head, though such an underestimation of the slaves was at the heart of the charges made against the *maquinistas*. However, to be working alongside those who, unlike most other skilled workers on the plantation, came from outside Cuba, bringing different ideas and speaking the language of liberty, must have helped boost the confidence of those who decided to rise up. They may even have taken literally the words that were spoken to them, and believed that such men really represented the countries that they came from, and would ensure the intervention of these on their behalf. Thus, though they were not the direct cause of the deepening discontent felt amongst Cuban slaves, the *maquinistas* did influence the conditions that were leading to a slave uprising.

Whatever the actual engagement of the *maquinistas* in abolitionist campaigns (and there is little concrete evidence to suggest that any of them was politically engaged), they were tainted by association. From the 1830s, British and American Anti-slavery societies were increasingly turning their attentions to Cuba.⁴² The British government in particular became impatient "at the ill success of its past efforts for the suppression of the slave trade," and determined "to make use of more effectual measures in future".⁴³ In 1840, David Turnbull, a famously outspoken abolitionist, was sent as Consul to Cuba principally because "the government of Madrid has shown itself unable to cause the local government to observe the treaty" signed between Britain and Spain in 1817 to bring an end to the trade.⁴⁴ Members of the Abolitionist Society were increasingly travelling to Cuba and Puerto Rico, to investigate the conditions of slavery in those islands;⁴⁵ and anti-slavery propaganda was being infiltrated in various forms. On one occasion in 1841, a crate of English crockery was

⁴¹ ANC, CM, 51/1, 1ra, p.67.

⁴² Letter from Conde de Ofalia to Spanish Plenipotentiary Minister in London, Madrid, 22nd February 1838 (AHN, E, 8565/1).

⁴³ *National Anti-Slavery Standard*, New York, 5th May 1842.

⁴⁴ Letter from Palmerston to Mr Aston, London, 6th March 1841 (in *British and Foreign Anti-Slavery Reporter*, 7th September 1842).

⁴⁵ Letter from Captain General of Puerto Rico to Gerónimo Valdés, November 1841 (ANC, GSC, 844/28344).

seized in Havana, “several plates representing negroes dancing around the flag of liberty”.⁴⁶

It was widely perceived in Cuba that British abolitionists were playing an active part in generating the conditions for slave uprisings, and general discontent. A group of planters from Matanzas sent to the Captain General a petition, which, although calling for an end to the slave trade, expressed concern that “an English mission, at the head of which is one of the most zealous abolitionists, is now proceeding through the island”.⁴⁷ It was no secret that David Turnbull had been appointed British Consul in 1840 because of his staunch abolitionism. Prior to his arrival, Richard Robert Madden had been working in Havana as British Superintendent of Liberated Africans, and had already drawn the attention of the British government to the presence of many black British subjects, either kidnapped or otherwise illegally taken into slavery in Cuba. Turnbull arrived in Havana with express orders from the Foreign and Colonial Offices to seek out and secure the liberation of these unfortunates.⁴⁸ His activity on behalf of the enslaved British subjects led to much suspicion that he was agitating for general slave emancipation. Such suspicions were greatly exacerbated when, having already been expelled once from Cuba, he returned to the island, to continue his investigations. He was immediately arrested, taken to Havana for trial, and only narrowly escaped with his life.⁴⁹

Though no official support was forthcoming from the British, beyond the machinations of Turnbull and his associates, this was clearly an atmosphere in which careless words spoken by the *maquinistas* would have led to a presumption of their involvement, on the part of both the oppressed and their oppressors. Even if there was a tendency for *maquinistas* to act in a racially paternalistic manner towards the slaves, given the context of generalised hostility towards blacks this in itself may have been interpreted as implicitly subversive. In the early 1840s, foreign, and in particular

⁴⁶ Letter from Cocking to J. H. Tredgold, Havana, 13th May 1841 (RH, BFASS, MSS Brit Emp s.18, G77).

⁴⁷ Petition from Matanzas planters to O'Donnell (*British and Foreign Anti-Slavery Reporter*, Vol.5, No.7 – 3rd April 1844).

⁴⁸ Letter from Viscount Palmerston to Turnbull, 26th August, 1841 (PRO, FO 84/358).

⁴⁹ Extracts of statements sent by Captain General Gerónimo Valdés to the First Secretary of State in Madrid, 5th November 1842 (AHN, E 8054/2); and Crawford to John Bidwell, 6th November 1842 (PRO, FO 72/609). On the connection between Turnbull's activities, kidnapped Caribbeans and the *Escalera*, see Jonathan Curry-Machado, 'How Cuba Burned with the Ghosts of British Slavery: Race, Abolition and the *Escalera*', *Slavery and Abolition* (forthcoming).

British, abolitionist activity in Cuba provoked a backlash against all who were perceived as in any way connected. The real or imagined activities of Turnbull and other abolitionists led to all the British, and other white foreigners, coming under suspicion.⁵⁰ In 1841, two North Americans tried to get into the Havana slave market to witness an auction, but were “refused admittance, on the supposition of their being Englishmen.” When they corrected the misapprehension, and explained that they were in fact from New York, “admission was immediately and peremptorily refused, with the observation that, if they had been from New Orleans, their request would have been granted”.⁵¹ The presumption clearly was that while those from the slave-owning US South were acceptable, anyone coming from places in which abolitionism was politically strong were not welcome. Since most *maquinistas* came from those places, there can be little doubt that, even without opening their mouths, their presence in slave plantations was seen as something to be feared.

Abolitionism was not only a foreign import into Cuba. There were a growing number of Cubans opposed to the slave trade. However, their reasons were somewhat different from the apparently humanitarian motivations of the foreign abolitionists. In part they were aware that “England is taking measures to injure their commerce, in consequence of this trade”.⁵² However, they were above all afraid of the increasingly black population, “our natural enemies”, that resulted from the influx of fresh slaves.⁵³ After all, Haiti, with a free coloured population of almost a million, was very close, as were Jamaica and the other English islands, amounting to half a million more free blacks, “which cannot but exert an influence on the slave population of Cuba;” and in the United States there were three million slaves “which from their numbers lead the Cubans to apprehend successful insurrections, the effects of which would extend to their own slaves”.⁵⁴ While this ‘black fear’ led many white Cubans to turn towards separatist or annexationist politics, many did so reluctantly, having warned Spain that unless they “shall adopt immediately some energetic measures to remedy the evil,”

⁵⁰ *British and Foreign Anti-Slavery Reporter*, Vol.5, No.15, 24th July 1844.

⁵¹ Letter from Cocking to J. H. Tredgold, Havana, 10th March 1841 (RH, BFASS, MSS Brit Emp s.18, G77).

⁵² *National Anti-Slavery Standard*, 5th May 1842.

⁵³ Memorial presented to Captain General of Cuba (RH, BFASS, MSS Brit Emp s.18, G77).

⁵⁴ *National Anti-Slavery Standard*, 5th May 1842.

then Cuba would be “irrevocably lost” to them.⁵⁵ However, Spain was “too stupid or too incredulous to understand this”,⁵⁶ and no policy was consistently pursued to remedy the problem.

This contributed to the developing contradictions at the heart of the Cuban hegemonic class, which were forming along the fault-line caused by conflicting ideas of how the ‘nation’ should be defined. While the Spanish saw, and treated, the island as their colony, denying political power to the white Creole elite; amongst the latter there was an emergent notion of a Cuban nation, ruled over by themselves. This was intensified by the increasingly significant role of non-Spanish commerce and investment, in which the *maquinistas* acted as important agents through their involvement in the penetration of foreign machinery. It was increasingly felt that, while Cubans produced the wealth, the Spanish merely leached off this, while preventing those born on the island from having real control over their destiny.

By the early 1840s, a number of prominent Cubans were scheming ways to separate the island from its European masters, either through independence or annexation to the United States. In 1842, it was alleged that the United States President had promised arms to support a Cuban rebellion.⁵⁷ British representatives in Cuba became concerned at the activities of North American officials, and it was recognised that the United States Consul at Gibara was “an agent of that Government and in direct communication with the discontented Creoles”, promising not only military support, but also that independence would not include slave emancipation.⁵⁸ It was this last concern that ensured that, despite the coincidence of growing discontent amongst both the Cuban elite, and the slaves and free coloureds, any coalescence of struggle would be ephemeral. That there were two, racially-defined committees involved, and that British abolitionist agents were forced to act as go-betweens to enable any kind of communication, is a good sign that any genuine attempt to coordinate a general uprising for both independence and emancipation was little more than wishful (or fearful) thinking. In fact, one theory as to how the conspiracy became discovered is that one of the leading white Creole liberals and conspirators, Domingo del Monte,

⁵⁵ Domingo del Monte, ‘The Present State of Cuba’, in *The United States Magazine & Democratic Review*, Vol.XV (1844), p.478.

⁵⁶ Letter from Crawford to Stanley, 30th October 1868 (PRO, FO 72/1189, No.18).

⁵⁷ Letter from Joseph T Crawford to Aberdeen, Havana, 12th August 1842 (PRO, FO 72/609).

⁵⁸ Letter from Crawford to Aberdeen, Havana, 6th December 1842 (PRO, FO 72/609).

reported the threatened uprising to the United States representative, Alexander Everett, who in turn informed the Spanish authorities of the impending, British-supported slave uprising.⁵⁹

The evidence of the direct involvement of the *maquinistas* in the conspiracy was highly dubious, and there are a number of reasons why it is highly unlikely that they would have been involved. It has to be questioned why they did not attempt to leave, even though the conspiracy had been discovered, and many arrests had already been made, prior to their arrest. As Daniel Downing pointed out, Elkins had been arrested a full month before him, and if he had been guilty he could easily have left, “more particularly as I could have got my money when I applied for it and the engine was stoped [sic] for a week”. Although he claimed to have only infrequently seen Elkins, he was quick to offer his “assistance to his poor wife” following Elkins’s arrest, and would have gone with her to Havana, if she had not already gone with someone from the Estate: “so it was better as I should have exposed myself more, but I was determined to have gone at any hazard”.⁶⁰ This would have been strange behaviour indeed for someone with a guilty conscience.

Foreign *maquinistas* in Cuba demanded very high salaries, and showed many signs of having accumulated at least modest wealth through their work there. This would have made it clearly against their interests to have anything to do with a plot that, whatever they may have thought about the merits of its objectives, would have brought a protracted period of disruption and conflict to the island. Henry Elkins himself pointed this out to the Military Commission:

It is here that I exercise my industry, here that I have employed my savings that this and my economy have produced, and it would be the strangest thing in the world that, having a project to upset the order of the country, I should not place outside the country what I had remaining having covered my necessities ... It is also unthinkable that having my family with me here and a way of life that is secure without great work, a convenience not offered to me by my own country, I should embrace the thought of contributing to the disturbance of the public tranquility [sic] and even less associate with the coloured people for the destruction of my race.⁶¹

⁵⁹ Sarracino, *Inglaterra: sus dos caras*.

⁶⁰ Statement of Downing (PRO, FO 72/664, no.12).

⁶¹ Letter from Elkins to the President of the Military Commission, Matanzas, 15th July 1844 (ANC, CM, 51/1, 2da, pp.393-400) – my translation.

One of the greatest proofs of their innocence perhaps came from their employers.

The British Consul wrote:

I have only to add that their respectability in their sphere of life is most undoubted and the greatest proof of the good opinion of their employers in this Island is that some of them, such as Mr Downing, are re-engaged upon the Estates from whence they were taken when they were arrested.⁶²

While other members of the migrant community stood bail for some of the *maquinistas*,⁶³ Elkins was eventually released on security posted by the owners of the estate where he worked, who not only re-employed him, but made personal representations to the Spanish authorities to attempt to secure his release in time for the start of the new grinding season – a clear indication of what they thought of his guilt.⁶⁴

But it turns out that there is an even stronger reason why many of the *maquinistas* who found themselves imprisoned would not have had anything to do with a plot for a slave uprising. Henry Elkins claimed not to know any of those who made charges against him, “because he was not accustomed to ever speak to coloured people”.⁶⁵ He expressed himself to have been very surprised by his arrest, and still more by the charge made against him, since the blacks on the estate had supposedly been planning to throw him alive into the boiling pans, “so that I would die with the rigour of the most cruel torment”.⁶⁶ This was not such a far-fetched fear, this having already been inflicted on another *maquinista*, who was “thrown into one of the sugar boilers and scalded to death”.⁶⁷

Elkins was not the only one to have had such poor relations with the blacks with whom he worked that it would seem to have precluded any involvement in the plot. William Mason was eventually released thanks to the evidence of an engine room slave from the Flor de Cuba mill, by giving evidence about how Mason had punished him

⁶² Letter from Crawford to Aberdeen, Havana, 9th October 1844 (PRO, FO 72/664, No.41).

⁶³ ANC, CM, 51/1 1ra, pp.237-238.

⁶⁴ Letter from Crawford to O'Donnell, Havana, 20th November 1844 (PRO, FO 72/664, no.50).

⁶⁵ Interrogation of Henry Elkins, Cárdenas, 3rd April 1844 (ANC, CM, 51/1 2da, pp.282-284).

⁶⁶ Elkins to President of Military Commission, 15th July 1844 (ANC, CM, 51/1, pp.393-400) – my translation.

⁶⁷ Philadelphia correspondent of the *Morning Chronicle*, quoted in *British and Foreign Anti-Slavery Reporter*, Vol.5, no.7, 3rd April 1844.

for having broken the engine belt, as well as on other occasions, and that, although Mason had offered to help him escape from the plantation, he hated him.⁶⁸ Eventually witnesses were found relating to the *maquinistas* other than the whipped and tortured slaves. In the process an entirely different story begins to emerge. Not only did the Commander in Arms of Guamacaro, the district where many of them were based, confirm the anti-black sentiments of Elkins, but also that he had played a very active part in the suppressing of the 1843 slave uprisings in the area.⁶⁹ Samuel Moford was arrested as the result of a conversation that had allegedly taken place between him and the estate's *maquinista*. However, at the time of the Bemba uprising, he had given the alarm, and fought against the slaves, suffering an injury in his left arm following a fight against six of them. He claimed that he saw it as the duty of a "Good American" to defend the country that was supporting him from its enemies.⁷⁰ Such stories stimulate the suspicion that these men found themselves accused as an act of personal revenge against them, not just for their poor relations with the slaves and other blacks, but because they had showed such a commitment to assisting in their repression.

Much debate has always surrounded the *Escalera*. A later Captain General of the island, José Gutiérrez de la Concha, commented in his memoirs on the investigations of 1844:

The findings of the military commission produced the execution, confiscation of property, and expulsion from the island of a great many persons of colour, but it did not find arms, munitions, documents, or any other incriminating object which proved that there was such a conspiracy, much less on such a vast scale.⁷¹

Gutiérrez de la Concha was not alone amongst contemporaries in doubting the existence of the conspiracy, with others expressing a growing belief "that no such conspiracy ever existed; but the idea having been taken up, the authorities found it to their interest to keep up the alarm".⁷²

⁶⁸ ANC, CM, 63/9.

⁶⁹ ANC, CM, 51/1 2da, pp.402, 477-478; & 3ra, p.679.

⁷⁰ Letter from Samuel Moford to President of Military Commission, Matanzas, 23rd August 1844 (ANC, CM, 51/1 1ra, p.247).

⁷¹ José Gutiérrez de la Concha, *Memorias* (1853), p.15, quoted in Murray, *Odious Commerce*, p.176.

⁷² Letter from Kennedy to Aberdeen, Havana, 8th July 1844 (PRO, FO 84/509, No.31).

In 1844, Captain General O'Donnell complained that the island had become overrun with foreigners "schooled in revolutions and many of them in crimes".⁷³ In such an atmosphere, it isn't surprising that the foreign *maquinistas* found themselves caught up in the criminal proceedings, and that there was much fear that they would be treated unjustly.⁷⁴ The Spanish authorities very readily gave credence to the testimonies made against the *maquinistas*, not out of any gullibility on their part, but because the scapegoating of this group was clearly in their interests. It provided them with a convenient tool with which to help them discredit and defeat the rebellion.

These official 'interests' were in part racial. The Cuban free coloured population had been growing in strength and influence, leading to fears that they would begin to wield greater political power, which it was felt would inevitably be in the direction of slave emancipation and Cuban independence. Their increasingly prominent role in urban life provoked a white backlash. One of the victims of the ensuing persecution saw clearly through the pretence:

[T]he atrocities which have been committed, the heavy waste of human life, wantonly on the estates, and judicially by the different Military Courts, has only been got up to get rid of a portion of the population odious to the whites.⁷⁵

It was also perceived that the interests of the Spanish authorities were financial. Repression, as well as to suppress the free coloured population, was also "to fill the rapacious pockets of the Spanish officials from the Captain General downwards".⁷⁶ By maintaining the accusations of conspiracy, "many make it an occasion of spoil, and all a means of gaining credit from their Government for their services in preserving for Spain this possession".⁷⁷ While they may have started by looking towards the wealth of the free coloured population as something to be plundered, it was not long before other potential victims fell under their attention, among them British and other foreign residents in the island. One merchant wrote:

⁷³ Letter from O'Donnell to Spanish Secretary of State, Havana, 28th February 1844 (in Paquette, *Sugar is Made with Blood*, p.116).

⁷⁴ Letter from Crawford to Aberdeen, 7th June 1844 (PRO, FO 72/664, No.12).

⁷⁵ Memorial of Daniel Kelly to George B. Mathew (Governor of the Bahamas), Nassau, 31st August 1844 (PRO, CO 23/118, No.15).

⁷⁶ Letter from Kelly to Mathew, 8th July 1844 (PRO, CO 23/118, No.15).

⁷⁷ Letter from Kennedy to Aberdeen, 8th July 1844 (PRO, FO 84/509, No.31).

I'm afraid that our troubles are but as yet commencing for these vampires are now tasting blood and they find it sweet, so that if some stop are not put to their career soon the lives and property of British subjects are in great danger, their aim appears to be money and they are not particular how it comes.⁷⁸

The Spanish authorities were quick to seek out collaborators amongst the foreign resident population. It came to be alleged that the *maquinistas* were an important link in the relationship between the conspirators and their British supporters, and were responsible for the smuggling in of arms.⁷⁹ Stories began to abound of the leadership given by these foreign *maquinistas*. One interrogated slave claimed that arms and munitions had been unloaded from an English ship, and hidden in the hills near Canasí, on the coast between Matanzas and Havana. He had been told by another slave that the English *maquinistas* were responsible for stirring up the blacks.⁸⁰ Domingo Ponte claimed to have been told by a white man in November 1843 that four ships were to arrive with blacks from Santo Domingo; and that the English *maquinista* Thomas Bettin had told him:

You mulattos and blacks are very stupid, above all those of the Island of Cuba, because you don't rise up on mass against the whites. We English would help you, so that the slaves may be free, and those who are free rewarded.⁸¹

Such tales quickly led to arrests.⁸² Robert Mathers later wrote about how he was arrested "without the shadow of evidence against him", other than the declaration made against him by a slave on a neighbouring plantation, who claimed that "I had asked him whether he would not like to live under the English flag." Subsequently proved innocent by other witnesses, he was released a few days later.⁸³

Some of these men fell foul of the law almost by accident, it would seem. One "suffered a long confinement for having in his possession a letter from a friend in the United States, advising him to leave the island".⁸⁴ Another, Henry Cabalier, a North

⁷⁸ Letter from Sim to Crawford, Matanzas, 30th June 1844 (PRO, FO 72/664, No.18).

⁷⁹ ANC, CM, 51/1 1ra, pp.78-79.

⁸⁰ ANC, CM, 51/1 1ra, pp.73-75.

⁸¹ Declaration of Domingo Ponte, 14th April 1844 (ANC, CM, 51/1 1ra, pp.141-147) - my translation.

⁸² Letter from Crawford to O'Donnell, 22nd April, 1844 (PRO, FO 72/664, No.8).

⁸³ Statement of Mathers (PRO, FO 72/664, No.12).

⁸⁴ *British and Foreign Anti-Slavery Reporter*, Vol.5, No.15, 24th July 1844 - reproducing a report in a North American newspaper.

American *maquinista* in the Cárdenas railroad workshop, not realising the danger he himself was in, reported that he had heard another North American *maquinista*:

publicly complain of the indiscipline and carelessness with which the blacks on [the 'Alcancía'] estate did what they wanted, such that he would bet any amount that within two years those blacks would rise up, just as has been seen, since the previous year's movements began there.⁸⁵

Caballier subsequently found himself charged with having distributed two hundred pesos amongst those interested in participating in an uprising, promising them arms.⁸⁶

There is much to support the argument that the accusations made against the British were a result of Spanish anglophobia in Cuba. The Spanish were renowned for their tendency to play down slave uprisings (and the independence struggle) by blaming them on foreign influence or intervention.⁸⁷ Even before 1843, official anglophobia was spreading across Cuba, with a number of complaints being made about the treatment that Britons were receiving purely as a result of their nationality.⁸⁸ It was partly because of this that Crawford was so afraid that "if this dreadful insurrection does break out, our situation will be far from enviable".⁸⁹ This fear was confirmed by events in 1844:

It has been the prevailing idea, and I may say the wish of a certain class of persons, that they should find the English, in some way, implicated in these insurrections; and their enquiries and questions have been mainly directed with this object in view.⁹⁰

The British Commissioner, James Kennedy, believed that the Governor of Cárdenas was especially predisposed to "implicate and persecute what English subjects there happened to be in his jurisdiction".⁹¹ One of the *maquinistas*, John Fraser, was arrested but released after two weeks:

[N]o reason at all given and when I enquired, why I was confined, I was ordered with much abuse of the English Nation and of the English, to hold my tongue.⁹²

⁸⁵ Evidence of Henry Caballier (ANC, CM, 51/1 2da, pp.296-297) – my translation.

⁸⁶ Summary of case against Henry Caballier, by the Public prosecutor Francisco Yllas, 16th October 1844 (ANC, CM, 51/1, p.528).

⁸⁷ Murray, *Odious Commerce*, p.161.

⁸⁸ Paquette, *Sugar is Made with Blood*, p.140.

⁸⁹ Letter from Crawford to Aberdeen, Havana, 19th April 1843 (PRO, FO 72/634, No.17).

⁹⁰ Letter from Kennedy to Aberdeen, Havana, 31st July 1844 (PRO, FO 84/509, No.35).

⁹¹ Letter from Kennedy to Aberdeen, Havana, 27th December 1844 (PRO, FO 84/509, No.53).

⁹² Statement of John Fraser, made to Crawford, Havana, 14th August 1844 (PRO, FO 72/682, Dispatch No.6 of 1845 from Crawford to Foreign Office).

The North Americans likewise felt themselves to be in a difficult position. A North American newspaper reported:

The American residents in Havana are so miserably treated, and our government appears to take so little interest in their affairs, that very many of them call themselves Englishmen.

Reports were made of how Captain General O'Donnell "speaks in rather contemptuous terms of the United States"; and that on one occasion had exclaimed:

To h[ell] with the United States and her citizens, they have only 8,000 men in their whole army, while I have an army of 20,000 men in Cuba. D[am]n the United States.⁹³

However, most spoke of how the North Americans faced problems because they would frequently be mistakenly taken for British, and many were arrested in 1844 "under a suspicion that they were English".⁹⁴

This was not simply an opportunity for the Spanish to ill treat residents who came from those countries that were challenging their dominance over the island. Labelling the rebellion as foreign-inspired helped to discredit it in the eyes of many, just as characterising it in racial terms helped serve to prevent whites from finding common cause with the slaves and free coloureds. It is this that helps to explain the apparent paradox of why a group of white migrants should have been accused of involvement in an uprising that was allegedly aimed at bringing death to all whites. Though this was relatively early on in the presence of foreign *maquinistas* in Cuba, they were already clearly perceived as a group of outsiders. As such, they could be accused of pretty much anything, however apparently contradictory, and have the accusation taken seriously. The situation that led to their unconsciously influencing the intensification of social divisions and the development of conflict, also provided the grounds by which the Spanish could accuse them of involvement, and hence use them to discredit the anyway weak revolutionary movement.

By the time they were released, they had served their purpose. With the immediate threat of rebellion defeated, these valuable workers could be allowed to return to their employment. So effective does the repression of 1844 seem to have

⁹³ *British and Foreign Anti-Slavery Reporter*, Vol.5, No.15, 24th July 1844 - reprinting a report from a North American newspaper.

⁹⁴ Letter from Kennedy to Aberdeen, Havana, 5th September 1844 (PRO, FO 84/509, No.41).

been, that by August “the insurrectionary excitement had considerably subsided; and the negroes, particularly on the plantations, were peaceable, and the whole island seemed to be in a state of quiet”.⁹⁵ However, although the island may have been returned to a state of tranquillity, it was the “tranquillity of terror”.⁹⁶ It was a terror in which the *maquinistas*, suitably chastened by their unpleasant experience, possibly played a part. The shame of arrest, charged with involvement in a black slave plot, may have hastened their adoption of a clearly defined white identity, and by so doing they could be used to help form a buffer between the slaves and the masters. They were also used in the strengthening of the racial divide, with the assertion of white domination over important new sections of employment such as their own.

However, they were also a constant reminder of the supremacy of the transnational networks that were tearing the island away from Spanish hegemony, and continued to be perceived as a threat by the authorities. They may not have meant to be, nor even have been conscious of the fact that they were. But in the early 1850s, as Cuba faced the danger of filibuster expeditions seeking to wrest control of the island from Spain, the government ordered all foreign *maquinistas* to be kept under surveillance, and their movements noted.⁹⁷

This points towards the possible influence they had on one of the most important themes that run through Cuban historiography of the nineteenth century: what brought the slave system to an end. Manuel Moreno Fraginals argued that slavery collapsed due to the development of the forces of production to a point at which further development could no longer be sustained whilst slavery remained. Thus the relations of production, finding themselves in contradiction with the forces, necessarily changed - so bringing abolition of slavery and the move towards ‘free’ wage labour.⁹⁸ While Franklin Knight generally agreed with Moreno’s analysis, he raised an uncomfortable question for this ‘decline thesis’:

By 1850 the Cuban sugar industry was the most advanced the world had ever experienced. Why then did abolition of slavery take so

⁹⁵ *Manchester Guardian*, 14th August 1844.

⁹⁶ *British and Foreign Anti-Slavery Reporter*, 21st August 1844.

⁹⁷ ANC, GSC, 1285/50227.

⁹⁸ Moreno Fraginals, *El Ingenio*. See also: Iglesias, ‘Development of Capitalism’; and Fé Iglesias García, ‘Changes in Cane Cultivation in Cuba, 1860-1900’, *Social and Economic Studies*, 37:1-2 (March-June 1988).

long? Surely, the combined influence of internal capital application and external humanitarian pressure should have been able to terminate slavery in the island before 1886.⁹⁹

This has led to the uncovering of the role played by wider social and political forces, in addition to the economic.¹⁰⁰ As a result, the argument that slavery collapsed for technological reasons has been further undermined. As Rebecca Scott writes:

There are, in effect, two doubtful elements to the claim of a 'contradiction' between slavery and technology. One is the notion that slaves could not or would not acquire the skills necessary to handle machinery. This is challenged by the evidence. The second is the idea that all mechanization requires an overall increase in the skill level of the work force, something thought possible only with a free work force. This is neither theoretically convincing nor empirically correct.¹⁰¹

This seems to be supported by the example of the *maquinistas*. It has been shown how they worked alongside slaves trained in many of the skills necessary for the running and maintenance of the sugar machinery, and the foreign *maquinistas* were employed by the most developed estates, which were the ones most tenaciously holding on to slavery. This has also been found by Laird Bergad, who concludes that slave labour continued to be more economically advantageous than free labour in the sugar plantations right up to emancipation.¹⁰²

While the fact of the migrant *maquinistas'* presence would seem to confirm the lack of a simple relationship between developing technological forces and slave emancipation, the reality and example of their presence appears to have had a contrary effect. Not only did their presence unwittingly help strengthen the social divisions that dominated Cuban society, they continued to unconsciously threaten the established order. They were white salaried workers in a black slave plantation, with the potential that this offered for breaking down race and juridical status divisions amongst workers.

⁹⁹ Knight, *Slave Society in Cuba*, p.xvi.

¹⁰⁰ See, for instance: María del Carmen Barcia, 'La esclavitud de las plantaciones, una relación secundaria', in *Temas acerca de la esclavitud*, Havana: Editorial de Ciencias Sociales, 1986, pp.96-116; and Barcia, *Burguesía esclavista*.

¹⁰¹ Scott, *Slave Emancipation*, p.27.

¹⁰² Bergad, *Cuban Rural Society*, p.225. See also Bergad, 'Economic Viability'. Bergad also demonstrates that the crisis in the Cuban sugar industry came after, not before, emancipation, suggesting that the collapse of the plantation economy was related to the end of slavery, rather than vice versa (Bergad, *Cuban Rural Society*, p.263).

Conclusion - Catalytic influence

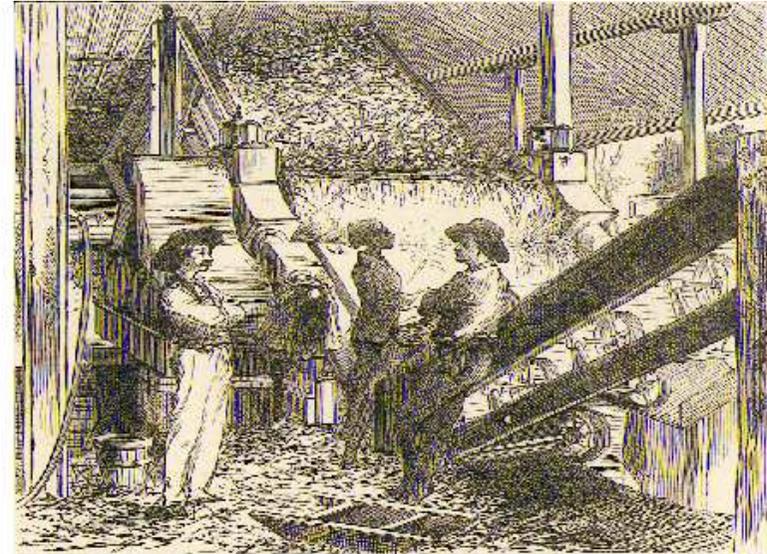
Influence, as it is commonly understood, is the effect that an individual, group or object has on others. If not necessarily a conscious effect, it is usually considered to be a direct one, occurring between those who are in some form of direct interrelationship. The influence that the *maquinistas* had upon the Cuban economy was of this kind. Their reason for migrating to Cuba in the first place was to perform a particular job, which in their case was overtly linked to the technological development of the island's sugar industry and infrastructure. Some of them also consciously engaged in invention, and in this way influenced the course of technological innovation. This was not the case with the attempt in Cuba to train native workers with the necessary skills to become *maquinistas*. Here, a perceived need (the shortage of native skills), which was what led to the immigration of foreign *maquinistas*, combined with a nationalist reaction to the presence of these foreign workers, to stimulate the training of Cubans. The *maquinistas* manifestly played no part in this, even in those situations in which they could have done (through the training of apprentices). This accentuated the resentment already felt towards them because of the privileges they enjoyed.

What makes this example different, and why it can be characterised as catalytic, is that while there was no direct input on the part of the foreign *maquinistas*, nevertheless changes occurred in Cuba, which while they might have happened anyway, developed in a manner they probably would not have done had the *maquinistas* not been present. As with the catalyst in a chemical reaction, for all that the migrants underwent personal changes as they passed through Cuba, they emerged at the other end as unengaged with what was occurring on the island as when they had started. They arrived for entirely different reasons, in which they were largely successful, yet because of their presence the society in which they found themselves was altered.

The example of the migrant *maquinistas* would seem to suggest that such an effect can occur only in cases where an individual or group has become defined as distinctly Other within that society. For all that they are participating in this society, they are not really integrated within it, but continue to be perceived as outsiders. This may be, as in the case of the *maquinistas*, because the social identity that they display is disruptive of, and at odds with, the underlying social divisions that define every person's position

and relationship to others. While some might react to this by seeking to change and be changed so as to become an integrated part of society, in many cases this appears to have been impossible. Though there were individual *maquinistas* who succeeded in doing this, as a group they found themselves being pushed (with themselves pushing) in the other direction, into terminal Otherness.

As a result, they did not really become actors in the struggles that were driving Cuban society, and were defining its history. Because of this, they have till now been relegated to footnotes and passing references, seen as anonymous and quite unimportant, beyond their function as machine operators. Yet, as was seen in the example of the *Escalera* conspiracy, they were influential in the intensification of social divisions and the eruption of conflicts. This was not through their active, conscious, direct engagement. It was a catalytic influence, stimulating by their presence the dramatic events of 1843-44. Had they not been there, there may still have been slave uprisings, and an aborted conspiracy, but the events of those two years would not have developed quite as they did. The possibility of emancipation and independence may not have seemed so immediate, and the repression that followed would have been denied a convenient scapegoat with which to discredit the revolutionary movement. Like good catalysts, they enabled events to unravel as they did, yet did not become consumed in the reaction, nor dissolved into the unstable solution that was Cuban society. They were discharged at the other end, to continue as they had before their catalytic involvement occurred.



XV - Scenes from the manufacture of sugar: cane cutting, boiler room, grinding, purging house
(Source: *The Graphic*, 8th, 15th & 22nd July, 1876)

CHAPTER EIGHT

CONCLUSION:

CHANGE, INFLUENCE AND *MAQUINISTA* INVOLVEMENT

This thesis began by questioning the easy dismissal of the *maquinistas* such as Henry Elkins, who were arrested during the *Escalera* investigations of 1844, as simply having been caught in the wrong place at the wrong time. Though they were all released, their experience continued to rankle with some of them, and in 1851 Elkins, along with three of his co-accused, wrote to the British Consul at Havana requesting support in their claim for compensation:

After so long a period as that which has passed since our imprisonment and the sufferings which we endured in the year 1844 under the false accusations which were raised against us by the *fiscales* [sic] employed by General O'Donnell at the time of the pretended Insurrection of the negroes we venture to express our hope that the claims for redress compensation and loss of time, submitted to our government have been satisfied and that you probably may be enabled to inform us respecting their payment. We therefore take the liberty of asking you for some information upon this to us most important subject, and if it should be that the matter has not been settled we request the favour of your bringing it again under the consideration of her Magestys [sic] Government as soon as possible.¹

Not only had the British Government not done anything to pursue the redress that they sought, when reminded of the particulars of the case they felt it expedient quietly “to let the matter drop”, and not even to reply to the Consul.² It was perhaps felt that, as has been found here, while they could honestly assert their innocence, they were nevertheless unconsciously guilty: of accentuating the conditions that led to revolt, of facilitating the discrediting of the conspiracy, and of problematising the divisions and tensions that underlay Cuban society.

Towards a framework

In order to make an attempt at tying together the various threads spun in the course of this study, it will be useful to combine them in an integrated way within a single framework of social dynamics and involvement, which brings together the history of

¹ Letter from Daniel Downing, Robert Highton, Henry Elkins and Daniel McIntosh to Crawford, Havana, 10th October 1851 (PRO, FO 72/793, No.55).

² Internal Foreign Office Memorandum, 8th January 1852 (PRO, FO 72/793, No.55).

the migrant *maquinistas* in mid-nineteenth century Cuba with the different conceptual debates with which this thesis has engaged.

Cuba should be seen as existing not in isolation, but at the interstices between several transnational networks. As a colony, the island was part of a Spanish colonial network, which was itself a participant in geo-political rivalries between the Atlantic powers. Commercial networks tied Cuba into an increasingly dependent relationship with foreign merchants and bankers, through which came the new machinery introduced into the island. Cuba also required a human presence, for the work to be performed, and this led to the development of migratory networks that saw the bringing not only of African slaves and Chinese indentured labour, but also free workers from the countries of the North Atlantic, amongst them the *maquinistas*. As the Cuban sugar industry in particular became reliant upon new technology, and with the presence in the island of those skilled not only in its operation but also its development, the island became a focus for, and even a contributor to, the technological networks that were spreading new discoveries around the globe.

These transnational networks brought with them new resources and productive forces, and also influenced the development of those already present in Cuba.³ Every society possesses a particular power structure, in which control of these resources and forces is exerted through a dialectical relationship of mutual influence. For example, in Cuba sugar was introduced through transnational networks, although at the behest of those with power in the island. There then developed a planter class, whose power and influence became based upon, and largely defined by, their control of sugar production. They were able to affect the on-going development of this industry (albeit increasingly within the context of the strengthening transnational networks), while at the same time being dependent upon the continued success of this manufacture.

In Cuba this power structure was multi-faceted, and directly engaged in a number of ways in the transnational networks. In addition to production, there was

³ By resources I mean the produce or potential produce of the island (principally, in the case of mid-nineteenth century Cuba, sugar, coffee, tobacco and copper). By productive forces, I mean that by which production is enabled, carried out, and its results transported to where it is needed. Hence, manpower, sugar mills and railways are all forms of productive force. Though in the mid-nineteenth century, much of this was already indigenous to Cuba (and hence not dependent upon the transnational networks), arguably most historically came to the island through such networks.

also financial and state power. Each of these was dominated by different elite groups: planters and other owners of productive forces; merchants; and governmental and military officials. Though their local power was constrained by the limits imposed by the external networks, they were themselves participants in these, which developed partly through their agency. The Atlantic slave trade may have been begun by the British, but by the mid-nineteenth century, with the British actively attempting to put an end to the nefarious traffic, Cuban slave traders, prompted by Cuban planters, became prime movers in its continuation.⁴

For all that there were important differences between the various dominant groups – differences that played a crucial part in Cuban history in the period – together they formed a ruling, or hegemonic, class. Although their power was premised upon their control over production, commerce and the instruments of domination, this alone was not sufficient to ensure their dominance at a social level. It was not just through capital and the whip that they kept those excluded from power under their control. It was necessary to define the social grounds for this domination and exclusion. This was maintained through the assertion of a multi-dimensional hegemonic identity. Although not without its contradictions, this formed the basis for defining the fundamental social identities and divisions. Individuals defined themselves and were defined in a number of ways: socio-economic class, juridical status, race, gender, nationality, religion and language. Through various intersections of these, social groups and classes were formed, and their difference from others asserted.

These intersectional identities and divisions were not just the result of hegemonic definitions. They occurred and were reproduced at every level of society, emerging not only in the national power structures, but also in a multitude of local communities and workplaces in which, while the general pattern was established by the wider context, the details and specificities of social relations developed. Thus the status of a slave was established and applied throughout the island, yet there were significant local variations in what this meant in practice. The position of a field slave was very different from that of a domestic slave, or one who was hired out to work in an urban

⁴ See, for example, Franco, *Comercio Clandestino*.

workshop.⁵ Hence forces of production directly impacted upon social identities and divisions. Likewise, since each sugar mill or workshop was operated through a division of power and labour, these in turn impacted upon the productive forces.

While all of these played their part in defining the form that Cuban society took, history develops not simply through the existence of social divisions, but through the development of these as social struggles, in which groups and classes contest for power and position in all their forms. Control of such conflicts is the principal role of those with state power, who seek to maintain order and the *status quo* so that all hegemonic groups can continue benefiting; and it is against the domination of these that those excluded from power protest. It is in this way that revolutions occur, as well as reforms, in which the powerful are forced to make adjustments to the system in response to social demands. Social conflicts also occur in everyday life, between individuals and groups (both hegemonic and excluded) as they vie with one another for social, economic, political and cultural position. In the process of such struggles, the resources and productive forces become affected: cane fields burnt or production halted by a strike, though at times social contention may lead to improvements in the productive process.

By way of illustrating the above, Figure 19 provides a schematic visualisation of this framework, showing how migrant *maquinistas* had a catalytic involvement in the complex interactions of Cuban society. It provides an abstract view of the important sites of social, economic and political contestation, and how these influence one another. Though the complex interactions out of which each of these are formed are not indicated, it is hoped that the dynamic nature of the system is conveyed. What needs to be born in mind is the extent to which Cuban society was a contradictory and fluid terrain in this period. Not only was hegemonic power contested between Spanish and Creole elites, but there was still no clearly defined national identity that Cubans could adhere to. This might have effected the extent to which an outside group had an influence.

⁵ See, for instance: Sidney Mintz, 'Slavery and the Slaves', *Caribbean Studies*, 8:4 (1969); and 'Slave Life on Caribbean Sugar Plantations: Some Unanswered Questions', in Stephan Palmié (ed.), *Slave Cultures and the Cultures of Slavery*, Knoxville: University of Tennessee Press, 1995.

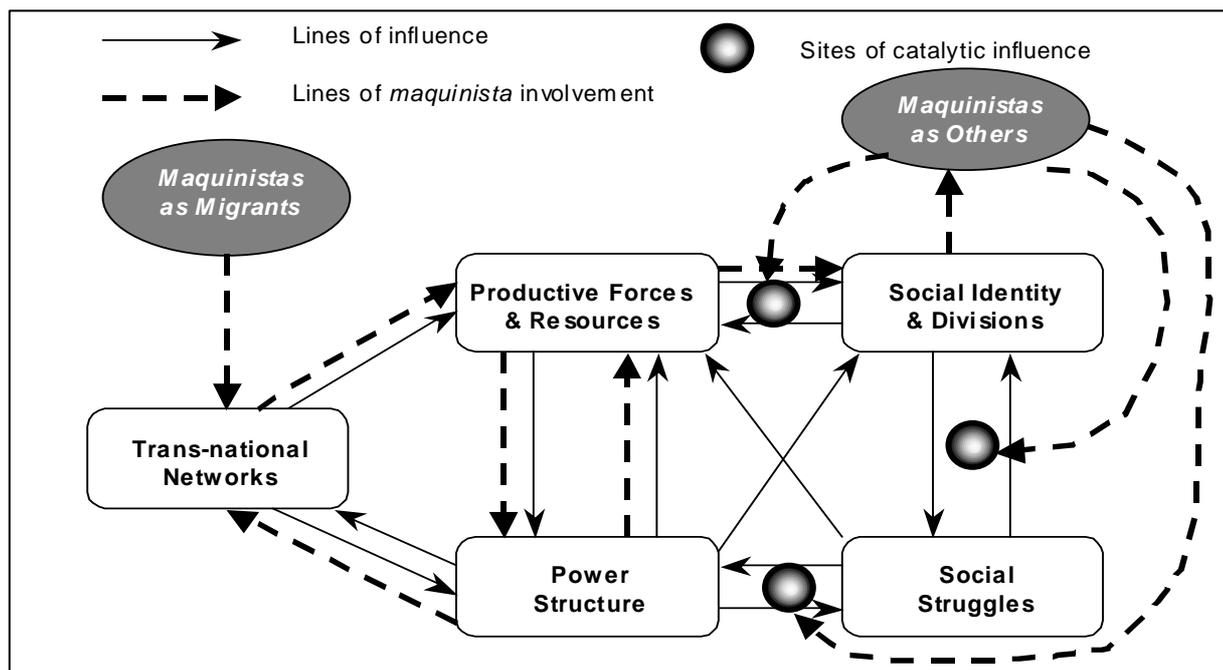


Figure 19 - A framework for change, influence and *maquinista* involvement in Cuba

It was into this that the *maquinistas* came, and through which their engagement with Cuban society was made. In the first instance, they arrived in Cuba by way of the transnational networks: partly those that were bringing new technology into the island, but also by virtue of being part of a much wider and more complex migratory milieu. Their entry into Cuba was, in effect, as a human productive force, operators of the newly imported machinery. Participating as they were in the principal source of Cuban wealth, they could not but become caught up into the divisions of power at the heart of Cuban society. Although only a few succeeded in becoming a part of the hegemonic class (and then only marginally), they all had a structural relationship to power, not only through their role as workers, but also in that some succeeded in playing an important part in the introduction of new technology. This led to their influence both in the improvement of Cuba's productive forces (including the need for an increasing presence of *maquinistas*), and in the penetration of the transnational technological network more fully into the island.

Since they were an important part of mid-nineteenth century Cuban industrial life, the foreign *maquinistas* inevitably found themselves in engagement with the identity divisions that drew rifts through Cuban society. They experienced

contradictions between their own perceptions of themselves, and how they were perceived by others. This led to their rearticulating their identities, but in such a way as to ensure that they would be seen as Others by many in Cuban society, whether members of the hegemonic class, whose identity they emulated, or the various groups excluded from power, with whom their assumed identity was at odds. Since their employment did not arise only out of their being foreign, but even partly depended upon this fact, they became seen (for all the many differences that no doubt existed between them, and the lack of group identity that they themselves felt) as a clearly defined group. This brought with it a deepening sense of otherness, which ultimately prevented the migrant *maquinistas* becoming incorporated as a group into Cuban society.

This meant that they were highly unlikely to take an active part in Cuban social struggles, direct involvement in which presupposes a certain degree of belonging to that society. Their presence in the island was generally ephemeral, with many of them being present for only half the year, and most – although some lived for many years in Cuba – continuing their lives and establishing their families elsewhere. They were also relatively few in number. Combined, this has led to the common sense supposition that their contribution to Cuban society (beyond the evident importance of their work to the development of Cuban industry) was limited, or entirely non-existent. After all, how could they be expected to have been at all influential in bringing about social or political change when they were such a small group, perceived, and perceiving themselves, as outsiders, with no obvious engagement with the social struggles that were dividing and driving Cuban society.

However, it appears that it was precisely because of their identity as outsiders that they played a very specific role in Cuban affairs. They may not have done so consciously (in fact, on the whole they appear to have been entirely unaware that they were having any effect, and would themselves have been surprised had anyone suggested they were), but nevertheless they influenced the course of Cuban history. They did not do so intentionally or directly (as they were at times accused of doing); but the form that their presence in Cuba took led to their having a catalytic influence upon events and developments in which, while they themselves were not immediately involved in particular circumstances, their presence (including the ways in which they

acted, related and expressed themselves in everyday life) provided a necessary stimulation, without which things would not have developed as they did.

A final word

The initial impulse behind this thesis was to recover the history of a group of migrant workers which had been historiographically sidelined. It has been shown how the *maquinistas* were a necessary, yet essentially alien addition to Cuban society. Without them, the Cuban sugar industry would not have developed as strongly as it did; and they also contributed to its growing dependency upon foreign powers, as well as to the development of the technology they were employed to operate. Travelling to Cuba because of the possibilities of economic and social advancement that this extended to them, nevertheless they do not seem to have become fully a part of Cuban society. Indispensable aliens, the evidence that has been found of their lives in Cuba suggests that they suffered from a deepening sense of their otherness. Nevertheless, they appear to have played a catalytic role in other developments in the island.

Whatever else this thesis has demonstrated, it is hoped that it has shown how even the individuals who make up the smallest of groups can have a deep and lasting impact upon society. No life is insignificant, and all social, political, economic and cultural structures, changes and phenomena are the result of the complex interaction of many such invisible existences. Importance cannot be measured in numbers, nor in the share of power and wealth that an individual, group or class might possess. Regardless of their apparent lack of lasting engagement with the society that played host to them, without such *maquinistas* Cuba would have been less than it is. Their shadow remains imprinted upon the island, as much a part of its identity as the steam engines that continue to haul cane, or the rusting remains of sugar mills that stand as monuments to the human endeavours and conflicts of the past out of which our world has been built.

APPENDIX A

TECHNICAL DEVELOPMENTS IN THE CANE SUGAR FACTORY¹

Maquinistas working for the mid-nineteenth century Cuban sugar plantations were responsible for installing, running and maintaining increasingly complex installations and machinery. This appendix gives an outline of the sugar manufacturing processes as they were being developed at that time, and hence of the equipment under the care of the *maquinistas*.

Notes

1. The following table provides an explanation of the processes used in the mid-nineteenth century for the manufacture of cane sugar, together with an indication of the main technical developments during the period, with which the plantation *maquinistas* would have been concerned.
2. Where possible, the table is based upon known introductions into Cuba. Otherwise, it is depends upon the general state of the industry at that time, and that the best of Cuban plantations were amongst the leaders in applying new technology.
3. Thus the table indicates what would be expected on the plantations of the more forward-looking and well financed owners. A high proportion of the plantations were dragging behind, continuing to use their old, well tried though inefficient installations.

Bibliography

The following would be good starting points for a more detailed exploration of the processes and equipment, and include explanation of the historical backgrounds:

- C. G. W. Lock and R. H. Harland, *Sugar growing and refining: a comprehensive treatise*, London: Spon, 1882
- J. A. R. Newlands and B. E. R. Newlands, *Sugar: a handbook for planters & refiners*, London: Spon, 1909
- L. Jones and F. I. Scard, *Manufacture of cane sugar*, London: Duckworth, 1909 & 1921
- G. Fairrie, *Sugar*, Liverool: Fairrie & Co, 1925

¹ I am deeply grateful to David Curry for his painstaking work in constructing this Appendix, which is based on his own research into the development of sugar technology in the nineteenth century.

Process stages	The process	Developments over the period	Innovations in each decade				
			1830s	1840s	1850s	1860s	
Cultivation of the cane	Propagated from cane cuttings; time for first crop up to 16 months. Several subsequent crops possible from the one planting. Labour intensive.	Traction engines introduced for cultivation & digging irrigation channels.	Cultivation				Steam cultivation
Cutting the cane & Transport to the mill	Manual cutting of canes; tops left for fertiliser or cattle fodder. Major task to gather and transport to the mill, using bullock cart. Speed is of the essence, to minimise loss of sucrose due to microbial action and inversion of the sucrose.	Traction engines introduced for haulage.					Steam traction
Mill cane to extract the juice	Crushing of the cane to expel the juice. The remains (bagasse) either composted for the fields or used as furnace fuel. The efficiency of juice recovery depends upon orderly feeding of the cane into the mill. The expansion of the estates and desire to maximise the juice demanded ever-increasing power and rate of feed.	Water and cattle power was already being replaced by steam. Handling of cane and bagasse eased by use of conveyors, to feed cane in and remove the bagasse. Mill sizes substantially increased and designs improved for strength & resilience to load.	Milling			Conveyor handling systems	
Screen the juice for debris	Mesh screen to remove the coarse cane debris from the juice.	Not used at first, but became increasingly necessary as the more powerful mills generated much cane debris.			Fine mesh screen		

Process stages	The process	Developments over the period	Innovations in each decade				
			1830s	1840s	1850s	1860s	
Pre-heat	Immediate heating of the juice is necessary to stop loss of sucrose and acidification due to fermentation.	Need for speed not recognised at first, so juice left standing to wait its turn for clarification and evaporation. Once the chemistry was understood, the juice was promptly heated and multiple defecation pans introduced, to handle the juice throughput and avoid delay.	Clarification		Pre-heat using waste steam Multiple defecation pans		
Defecate or clarify the juice	Juice is heated in open pans causing much of the impurities to gather into scum and sediment. Lime is added to counteract acidity, to prevent inversion of sucrose and bring further impurities out of solution. The crust is removed; the liquor decanted off.	Initially an integral part of the evaporation (in the “Jamaica train”); as the chemistry of the process became better understood it was made separate and the process allowed to complete properly. Steam heating made it possible to better control the process temperatures. Attempts made to improve on the basic chemistry			Defecation as a separate process. Steam heating in place of furnace.	Continuing improvements to defecation arrangements Experiments with new chemical processes	
Filter & de-colour the liquor	Filtration removes further fine solids. Passing through a bed of animal (bone) charcoal removes many of the coloured compounds in solution. The charcoal has to be regularly revived in a furnace.	The seemingly simple process of filtration presented practical problems before it could be effectively used. Not until the chemistry of charcoal filtration was understood was it effectively used. Both issues developed over the period. Attempts made to improve on the chemistry of decolouring			Filtration and animal charcoal being used, with problems.	Filtration and charcoal problems solved.	Experiments with de-colouring chemistry

Process stages	The process	Developments over the period	Innovations in each decade				
			1830s	1840s	1850s	1860s	
Evaporate the liquor to syrup	<p>Over 80% of the expressed juice is water, needing to be evaporated off; about 15% is sucrose (crystallisable sugar), of which $\frac{2}{3}$ will be recovered as sugar.</p> <p>Evaporation is achieved by boiling; but high temperatures are a problem, creating un-crystallisable sugar and discolouring caramel.</p> <p>The “Jamaica train”, a series of open pans heated by a furnace flue was in use by the 1830s. The juice was progressively worked along the pans, as it was concentrated to syrup.</p>	<p>The “Jamaica train” had been a major step in properly controlling the process, but was still inefficient. Moreover, this integration of defecation and evaporation created conflict between their respective requirements.</p> <p>Evaporation separated from defecation.</p> <p>Steam heating introduced.</p> <p>Mechanisms were devised locally and by manufacturers to speed the evaporation.</p> <p>Vacuum technology was the solution, the ultimate advance being the multiple-effect vacuum pan, still a backbone of sugar production.</p>	Evaporation		Separated from defecation		
Filter & de-colour	Further opportunity for filtration and de-colouring.				Steam heated pans	Multiple effect vacuum pans	
Concentrate the syrup to saturation	<p>Further boiling concentrates the syrup to allow the development of sugar crystals.</p> <p>The higher temperatures are a potential major problem, causing caramelisation.</p> <p>This operation has always been dependent upon the experience and skill of the operator to achieve a good product: an even crystal growth, to minimise the take up by the crystals of impurities from the syrup, the right size of crystals and minimum burning.</p>	Introduction of vacuum pans was the solution to the problems caused by excessive heating.			Pan designs improved to speed the process		
				Vacuum pans			

Process stages	The process	Developments over the period	Innovations in each decade				
			1830s	1840s	1850s	1860s	
Develop the massecuite	<p>The hot mass is turned out into a cooling pan and churned to promote development of even crystals of sucrose (cane sugar).</p> <p>The resultant “massecuite” is a mixture of sugar crystals in the remaining heavy “molasses” syrup.</p>		Crystallising				Powered churn
Purging (Separate out the molasses)	<p>Draining off the molasses leaves very moist, dirty crystals – “muscovado”.</p> <p>Washing of the crystals creates grades of white sugar, dependent upon the effectiveness of washing (and the care taken in the preceding stages of manufacture).</p> <p>The traditional method of washing was “claying”: water or syrup from a layer of clay is left to permeate through the crystals packed in moulds.</p>	<p>Attempts were made to accelerate the draining using suction from a vacuum pump.</p> <p>The centrifuge was a vast improvement on the ineffective, simple draining.</p> <p>Washing in the centrifuge then made the clumsy claying obsolete.</p>		Suction purging		Centrifuge	Washing in centrifuge
Drying for Storage & shipping	<p>Drying of the sugar minimises subsequent deterioration due to bacterial action and fermentation.</p> <p>The moist, raw muscovado, shipped for refining, was subject to much draining and deterioration in transit.</p> <p>White grades were allowed to dry before shipping.</p>	<p>Early development of Cuban railways assisted in transporting sugar to the markets.</p> <p>Developments in the preceding stages made marketing of higher grades of sugar from the factory an attractive proposition.</p>	Drying	Main railways			
Possible refining	Some of the progressive factories, recognising the potential for refined sugar, recycled raws (their own and from other plantations) for re-melting and crystallising.		Refine				

Process stages	The process	Developments over the period	Innovations in each decade				
			1830s	1840s	1850s	1860s	
Recycle molasses	<p>Molasses is a syrup of the un-crystallisable sugars, containing also further, unrecovered sucrose and impurities not removed by defecation.</p> <p>Molasses may be recycled for further recovery of sugar, before passing for fermenting and distilling to rum, or used in animal fodder.</p>	<p>Molasses was not reprocessed until the development of an understanding of the chemistry of sugar showed that it could be done.</p>	Molasses		<p>Re-processing of molasses</p>		
Fuel	<p>With the clearance of timber, the use of bagasse for fuel was an important issue (the alternative being to compost it for the fields). When used as fuel, it was argued that it was beneficial for the milling to leave some juice.</p>	<p>As steam was increasingly used for power and for heating the various processes, boiler designs were modified to make them suitable for drying and burning the bagasse.</p>			<p>Improved boiler designs for drying and burning bagasse.</p>		
Steam power	<p>As well as the major items referred to, various auxiliary machines were required to make the systems work.</p> <p>Even though all eyes might be on the impressive steam mill and the pans, it was probably the auxiliaries that created the greatest work load for the <i>maquinistas</i>.</p>	<p><u>The mechanised sugar factory:</u> juice pumps, air and vacuum pumps; steam engines for pumps and centrifuges; condensers for the vacuum pans; steam traps for handling condensate; revivification furnace for the animal charcoal.</p>			<p>Auxiliary machinery for the developing systems</p>		
Steam & water economy	<p>Viability of steam & vacuum technology in the sugar factory depended upon economic use of steam and water.</p>	<p>A major influence on the development of sugar factory equipment. Good maintenance by the <i>maquinista</i> was needed to maintain the effective economy.</p>			<p>Constant drive for economic equipment and good maintenance</p>		

APPENDIX B
CHRONOLOGY OF EVENTS

Years	Cuba	Atlantic World
1837	First railroad opened (Havana – Güines); Spain: End of colonial representation in <i>cortes</i>	Britain: Victoria becomes Queen
1838	Foundation of Royal Santiago Copper Mines Company further extends British domination of Cuba's copper mines, begun in 1835 by the Royal Copper Mines of Cobre; Edward Beanes arrives in Cuba	British West Indies: end of apprenticeship; Britain: Formation of Anti-Corn Law League; Britain: Start of Chartist Movement
1839	Slave mutiny on the <i>Amistad</i>	South Africa: Afrikaner republic of Natal founded; Formation of British & North American Royal Mail Steam Packet Company; First bicycle constructed
1840	David Turnbull becomes British Consul at Havana; Slave rebellions in Cienfuegos & Trinidad	Lower and Upper Canada united; Britain: Penny post established
1841	Slave rebellion in Havana; Henry Elkins arrives in Cuba; First vacuum pans introduced	
1842	Joseph T. Crawford becomes British Consul General at Havana; Slave Code published	South Africa: Orange Free States established; First use of anaesthetics
1843	Year of slave uprisings and <i>Escalera</i> conspiracy; Leopoldo O'Donnell appointed Captain General and Governor; William Henry Ross arrives in Cuba	Haiti: liberal revolution; SS <i>Great Britain</i> is first propeller-driven ship to cross Atlantic; First telegraph line built by Morse (Washington to Baltimore); Joule establishes theory of thermodynamics
1844	<i>Escalera</i> investigations and repression; Western Cuba hit by a hurricane	Dominican Republic declares independence; Daniel O'Connell convicted of conspiracy against British rule in Ireland
1845	Birth of Antonio Maceo	Underwater telegraph cable laid across English Channel; Engels publishes <i>The Condition of the Working Class in England</i> ; US annexes Texas
1846	Western Cuba hit by a hurricane; Richard McCulloh reports on the Cuban sugar industry to the US government; 20% of sugar mills using steam power	Britain: Corn Laws repealed; Ireland: Potato famine begins; Start of US-Mexican war; US annexes California and New Mexico

Years	Cuba	Atlantic World
1847	First indentured Chinese labourers arrive; Annexationist <i>Club de la Habana</i> founded	US defeat of Mexico; Freed slave republic of Liberia established; British Factory Act, restricts exploitation of women and children
1848	First failed annexationist invasion by Narciso López; US attempts to purchase Cuba;	European year of revolution: Paris, Vienna, Venice, Berlin, Milan, Rome, Warsaw; Slavery abolished in all French colonies; 'Responsible Government' granted to British North American colonies; End of US-Mexican War; US annexes Texas, Utah, Nevada; First Californian gold rush; Harriet Tubman escapes slavery and joins 'Underground Railroad' <i>Communist Manifesto</i> published by Marx and Engels
1849	Arrival of Yucatecan indentured labourers; First centrifuge installed by Ayesterán; Population: 458,033 whites; 164,712 free blacks; 324,187 slaves	Haitian invasion of Dominican Republic
1850	Second failed Narciso López invasion	London: Crystal Palace built
1851	Insurrection attempts in Camagüey and Trinidad; Defeat of final invasion attempt by Narciso López, and his execution; Order issued for close watch to be kept on foreign <i>maquinistas</i> ; First Cuban telegraph line established; 558 km of railway lines in service	London: Great Exhibition; France: Coup by Louis Napoleon; Railway established in Chile
1852	Annexationist plot uncovered in Pinar del Río	France: Napoleon III founds Second Empire; Britain: Preston cotton operatives lock-out; Britain: Sugar Acts repealed, further liberalising trade South African Republic established; David Livingstone begins exploration of Zambezi River; Harriet Beacher Stone publishes <i>Uncle Tom's Cabin</i>
1853	Birth of José Martí; Juan de la Pezuela appointed Captain General of Cuba	
1854	First Cuban international telegraph line established (to US); Annexationist plot uncovered in Havana; 2 nd US attempt to purchase Cuba	Slavery abolished in Venezuela; Start of Crimean War; Railway established in Brazil

Years	Cuba	Atlantic World
1855	Spanish <i>cortes</i> defends slavery as essential to Cuba	Slavery abolished in Peru
1856		End of Crimean War; Race riots in British Guiana
1857	One principal bank in operation in Cuba (<i>Banco Español</i>); Justo Cantero publishes <i>Los ingenios</i>	Irish Republican Brotherhood ('Fenians') founded; Railway established in Argentina
1858		SS <i>Great Eastern</i> (largest ship of its day) launched
1859	Royal Consolidated Copper Mines of San Fernando founded, to exploit copper reserves near Santa Clara	Construction of Suez Canal begins; Darwin publishes <i>On the Origin of Species</i> ; John Stuart Mill publishes <i>On Liberty</i>
1860	70% of sugar mills using steam power; Population: 604,610 whites, 89,848 free blacks & coloureds, 17,887 indentured labourers, 367,368 slaves	Garibaldi victorious in Southern Italy; Bessemer patents mass production of steel
1861		Start of US Civil War; Spain annexes Dominican Republic; First horse-drawn trams (London); Russia: abolition of serfdom
1862	1,473 sugar mills in Cuba	Gatling gun invented; London: International Exhibition; Maxwell establishes theory of electromagnetism
1863		US: Lincoln proclaims slave emancipation; Start of US Civil War; French capture Mexico City, and Maximilian proclaimed Emperor; Construction of London Underground begun
1864	Telegraph running length of island	Foundation of First International
1865	Formation of Reformist Party; First Cuban working class newspaper founded (<i>La Aurora</i>);	US: End of Civil War; Lincoln assassinated; Jamaica: Morant Bay rebellion; Dominican Republic: 2 nd Republic established; Mexico: Victory of Benito Juárez; First oil pipeline laid (Pennsylvania); First trans-Atlantic cable completed
1866	First Cuban trade union formed (<i>Asociación de Tabaqueros de La Habana</i>)	London: 'Black Friday' stock exchange crash; British Honduras: British campaign against Indians; Nobel invents dynamite; Seven Weeks' War: defeat of Austria by Prussia and Italy

Years	Cuba	Atlantic World
1867	Spain imposes new taxes	French leave Mexico; US buys Alaska from Russia; Britain: Second Electoral Reform Act; South Africa: Diamonds discovered; Marx publishes Volume 1 of <i>Das Kapital</i> ; Foundation of Austro-Hungarian Empire
1868	<i>Grito de Yara</i> , and outbreak of Ten Years' War for independence; 1,262 km of railway lines in operation	Puerto Rico: <i>Grito de Lares</i> uprising; Spain: Revolution, Isabel II dethroned; US: 14 th Amendment affirms civil rights for blacks; Britain: First official Trades Union Congress

Constructed from a variety of sources, but in particular making use of the chronologies in the following:

Louis A. Pérez, Jr., *Cuba : Between Reform and Revolution*, 2nd Edition, New York & Oxford: Oxford University Press, 1995

Rodolfo Sarracino, *Inglaterra: sus dos caras en la lucha cubana por la abolición*, Havana: Editorial Letras Cubanas, 1989

Denis Judd, *Empire: The British Imperial Experience from 1765 to the Present*, London: Harper Collins, 1996

Judy Pearsall & Bill Trumble (eds.), *The Oxford English Reference Dictionary*, 2nd Edition, Oxford & New York: Oxford University Press, 1996

BIBLIOGRAPHY

A. Primary Sources

1. *British archives*

Barings Archive, London (BA)

HC 2.318, 325 & 326

HC 4.6

LB 22 & 24

Bodleian Library, Oxford (BL)

Henry Ezequiel Emerson papers (HEE)

British Library, London

British Patents

Colindale Newspaper Library

General Humanities and Science Collections

Parliamentary Papers (PP)

Glasgow University Archives and Business Record Centre (GUABRC)

A & W Smith papers (UGD 118/1)

Mirlees Watson papers (UGD 118/2)

W & A McOnie papers (UGD 118/4)

Guildhall Library, London (GL)

Frederick Huth papers (FH)

Modern Records Centre (Warwick) (MRC)

Records of the Amalgamated Society of Engineers (ASE)

Public Record Office, London (PRO)

Board of Trade papers (BT)

Colonial Office papers (CO)

Foreign Office papers (FO)

Rhodes House Library, Oxford (RH)

British and Foreign Anti-Slavery Society papers (BFASS)

Royal Institution of Cornwall, Truro (RIC)

Hamilton Jenkins Letterbooks (HJ 1/17 & 1/18)

University College London (UCL)

Frederick Huth papers (FH)

J. Henry Schroder & Co papers (JHS)

2. *Cuban archives*

Archivo Histórico Provincial, Matanzas (AHPM)

Gobierno Provincial, Ingenios (GPI)

Archivo Nacional de Cuba, Havana (ANC)

Asuntos Políticos (AP)

Comisión Militar (CM)

Donativos y Remisiones (DR)

Escribanía: de Cabello Ozengera (ECO)

- de Guerra (EG)
- de Hacienda (EH)
- de Junco (EJ)
- de Salinas (ES)
- de Varios (EV)
- Gobierno General (GG)
- Gobierno Superior Civil (GSC)
- Intendencia de Hacienda (IH)
- Licencias para Fábricas (LF)
- Mapas y Planos (MP)
- Miscelánea de Expedientes (ME)
- Miscelánea de Libros (ML)
- Real Consulado y Junta de Fomento (RCJF)
- Realengos (R)
- Archivo Provincial 'Rita Suárez del Villar', Cienfuegos (APC)
 - Actas Capitulares
- Biblioteca Nacional 'José Martí', Havana (BNJM)
 - C.M.Bachiller
 - C.M.Lobo
 - C.M.Morales
 - C.M.Pérez Beato
 - C.M.Sociedad Económica
 - General Collection
 - Newspaper Collection
 - Sala Cubana, folletos
- Museo de la Ciudad, Havana (MC)
 - Fondo de Manuel Moreno Fraguinals (MF), cajas 234 & 235

3. Spanish archives

- Archivo Histórico Nacional, Madrid (AHN)
 - Estado (E)
 - Ultramar/Cuba/Fomento (UCF)

4. Contemporary newspapers and other serials

a) British

- The Artizan*
- The Beehive*
- British and Foreign Anti-Slavery Reporter*
- The Engineer*
- English Mechanic and Mirror of Science*
- Glasgow Herald*
- The Graphic*
- Greenock Sugar Trade Review*
- The Illustrated London News*
- Manchester Guardian*
- The Mining Journal*
- Morning Chronicle*

b) Cuban

Anales de las Reales Junta de Fomento y Sociedad Económica de la Habana
La Aurora de Matanzas
Diario de la Habana
Diario de la Marina
El Faro Industrial de la Habana
La Gaceta de la Habana
Hoja Económica de Sagua la Grande
Memorias de la Sociedad Económica de la Habana
El Noticioso y Lucero de la Habana
El Siglo

c) United States

Hunt's Merchant's Magazine and Commercial Review
Louisiana Planter & Sugar Manufacturer
Merchant's Magazine
National Anti-Slavery Standard

5. Contemporary books and other printed material

- Anonymous, *A Winter in the West Indies and Florida*, New York, 1839
- Atkins, Edwin, *Sixty years in Cuba - reminiscences of Edwin F Atkins*, Cambridge: The Riverside Press, 1926
- Ballou, Maturin Murray, *Due South; or, Cuba, Past and Present*, Cambridge, Mass., 1851
- Bando de Gobernación y policía de la Isla de Cuba*, Havana, 1844
- Barnet, Miguel, *Biografía de un cimarrón*, Havana: Editorial Letras Cubanas, 2001 [1966]
- Beanes, Edward, 'On the various qualities of sugar produced in Cuba and the different modes of manufacture', *The Sugar Cane*, Vol.2, Nos.12-14 (July-September 1870), pp.367-9; 421-2; 481-4
- Burgh, N. P., *The manufacture of sugar*, London: Trubner & Co., 1866
- Cantero, Justo, *Los ingenios, coleccion de vistas de los principales ingenios en la Isla de Cuba*, Havana, 1857
- Carlyle, Thomas, *Occasional Discourse on the Nigger Questions*, London: Thomas Bosworth, 1853
- Casaseca, José Luis, 'De la necesidad de mejorar la elaboración del azúcar en la Isla de Cuba, y de las mejoras de que es susceptible esta fabricación', Memorial presented to the Junta de Fomento, Havana, 1843
- Casaseca, José Luis, *Discurso inaugural ...al instalarse en La Habana la cátedra especial de aplicación de la física y de la química a la industria y a la agricultura*, Havana: Imprenta del Gobierno, 1845
- Cervantes Saavedra, Miguel de, 'El celoso extremeño', in *Novelas Ejemplares*, Barcelona, 1958
- Coburn, Zerah, 'Notes on American Engineering, Navigation, Iron Manufacture, &c.', *The Engineer* (17th September 1858), p.210

- Dana, Richard Henry, *To Cuba and Back: A Vacation Voyage*, Boston: Ticknor & Fields, 1859
- Del Monte, Domingo, 'The Present State of Cuba', *The United States Magazine & Democratic Review*, 15 (1844), p.478
- Delany, Martin, *Blake; or, The Huts of America*, Boston: Beacon Press, 1970 [1859]
- Dodd, G., *The Food of London*, London: Longman, Brown, Green & Longmans, 1856
- Dunlop, John, *A Philosophy of Artificial and Compulsory Drinking Usages in Great Britain and Ireland*, London: Houlston & Stoneman, 1839
- Engels, Frederick, *The Condition of the Working Class in England*, London: Grafton Books, 1969 [1845]
- García de Arboleya, José, *Manual de la Isla de Cuba*, Havana: Imprenta del Gobierno, 1859
- Giggs, R. W., *Cuba for Invalids*, New York, 1860
- Glasgow of To-day: the Metropolis of the North, an epitome of results and manual of commerce*, Historical Publishing Co, 1888
- Goodman, Walter, *Un artista en Cuba*, Havana: Editorial Letras Cubanas, 1986 [1873]
- Gutiérrez de la Concha, José, *Memorias sobre el estado político, gobierno y administración de la isla de Cuba*, Madrid, 1853
- Hazard, Samuel, *Cuba with Pen and Pencil*, Hartford, 1871
- Herring, James, *Diary*, unpublished MSS, n.d.
- Hespe d'Harponville, Gustave, Vizconde de, *La Reine des Antilles*, Paris, 1850
- Hodge, Edward, *Reminiscences of a Veteran Engineer*, Capetown SA, n.d., MSS
- Humboldt, Alexander von, *The Island of Cuba*, New York: Derby & Jackson, 1856
- Informe de la Comisión nombrada por la Junta de Agricultura, Industria y Comercio de Matanzas, sobre Colonización blanca y division del trabajo en nuestros ingenios...*, Matanzas: Imprenta de la Aurora del Yumurí, 1864
- Instrucción Reglamentaria: Llegada y circulación de gentes*, Havana, 1849
- Jay, W. M.L. , *My Winter in Cuba*, New York, 1871
- Kerr, Thomas, *A Practical Treatise on the Cultivation of the Sugar Cane and the Manufacture of Sugar*, London: John Griffin & Co and Richard Griffin & Co, 1851
- Leon, J. A., *On Sugar Cultivation in Louisiana, Cuba and the British Possessions by an European and Colonial Sugar Manufacturer*, London: P. Oliver, 1848
- Madden, Richard Robert, *The Island of Cuba: its resources, progress, and prospects, considered in relation especially to the influence of its prosperity on the interests of the British West India Colonies*, London: Charles Gilpin, 1849
- Marx, Karl, *The Eighteenth Brumaire of Louis Bonaparte*, in Marx & Engels, *Selected Works*, pp.96-179
- Oliván, Alejandro, *Informe a la Junta de Gobierno del Real Consulado sobre el ensayo del nuevo tren de elaborar azúcar, sentado en el ingenio de San José*, Havana: Imprenta Fraternal, 1831

- Pezuela y Lobo, Jacobo de la, *Diccionario Geográfico, Estadístico, Histórico de la Isla de Cuba*, Madrid: Imprenta del Establecimiento de Mellado, 1863
- Post Office Annual Directory, 1864-65*, Glasgow
- Rebello, Carlos, *Estados relativos a la producción azucarera de la Isla de Cuba, formados competentemente y con autorización de la Intendencia de Ejército y Hacienda*, Havana, 1860
- Reports from Secretary of the Treasury of Scientific Investigations in Relation to Sugar and Hydrometers by Prof. R. S. McCulloh*, Washington, 1848
- Sedan y Cruzat, *Cuba desde 1850 a 1873*, Madrid, 1873
- Soames, Peter, *A Treatise on the Manufacture of Sugar from the Sugar Cane*, London: Spon, 1872
- Subject-matter index of patents for inventions issued by the United States Patent Office from 1790 to 1873, inclusive*, Washington: Government Printing Office, 1874
- Taylor, John Glenville, *The United States and Cuba: Eight Years of Change and Travel*, London, 1851
- The Cuban Question and American Policy in the light of common sense*, 1869
- Toledo, Armildez de, *Noticias Estadísticas de la Isla de Cuba en 1862*, Havana: Imprenta de Gobierno y Capitanía General y Real Hacienda por S.M., 1864
- Trollope, Anthony, *The West Indies and the Spanish Main*, London, 1859
- Villa Urrutia, Wenceslao de, *Informe presentado a la Real Junta de Fomento, de Agricultura y Comercio de esta Isla ...sobre los resultados de la zafra que este año ha hecho su ingenio en un tren de Derosne*, Havana: Oficina del Faro Industrial, 1843
- Villaverde, Cirilo, *Cecilia Valdés: O la loma del ángel*, Havana: Editorial Letras Cubanas, 2001 [1839-82]
- Wood, Thomas, *The Autobiography of Thomas Wood, 1822-1880*, in Burnett (1974)
- 'A working man', *Working Men and Women*, London, 1879
- Wurdermann, J. G. F., *Notes on Cuba*, Boston, 1844
- Zamora y Coronado, José María, *Biblioteca de legislación ultramarina en forma de diccionario alfabético*, Madrid, 1844-49

7. Personal communications

- Pérez del Castillo, Guillermo Luis, e-mail received 8th August 2001
- Piñon, Jorge, e-mail received 2nd September 2001

8. Other sources

- Associated Press reports from Havana, dated 20th November 2002 and 12th March 2003
- David Curry, unpublished research notes on the development of nineteenth century sugar machinery

B. Secondary Sources

- Adas, Michael (ed.), *Technology and European Overseas Enterprise: Diffusion, Adaption and Adoption*, Aldershot & Brookfield, Vermont: Variorum, 1996
- Ahrne, Goran, *Agency and Organization: Towards an organizational theory of society*, London: Sage, 1990
- Al-Ali, Nadjie and Koser, Khalid, *New Approaches to Migration? Transnational Communities and the Transformation of Home*, London: Routledge, 2002
- Albion, Robert Greenhalgh, *The Rise of New York Port, 1815-1860*, Newton Abbot: David & Charles, 1972
- Allahar, Anton L., 'Slaves, Slave Merchants and Slave Owners in 19th Century Cuba', *Caribbean Studies* 21:1-2, 1988, pp.158-91
- Allahar, Anton L., *Class, Politics, and Sugar in Colonial Cuba*, Lewiston, Queenston & Lampeter: Edwin Mellen Press, 1990
- Althusser, Louis, *For Marx*, New York: Vintage Books, 1970
- Althusser, Louis, *Reading Capital*, London: New Left Books, 1970
- Anderson, Benedict, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, London: Verso, 1983
- Anderson, Perry, *Arguments within English Marxism*, London: Verso, 1980
- Anthias, Floya, *Ethnicity, Class, Gender and Migration: Greek Cypriots in Britain*, Aldershot: Avebury, 1992
- Anthias, Floya, 'Rethinking Social Divisions: Some Notes Towards a Theoretical Framework', *The Sociological Review*, 46:3 (August 1998), pp.505-35
- Anthias, Floya, 'The Concept of 'Social Division' and Theorising Social Stratification: Looking at Ethnicity and Class', *Sociology*, 35:4 (November 2001), pp 835-54
- Anthias, Floya and Lloyd, Cathie, 'Introduction: Fighting Racisms, Defining the Territory', in Floya Anthias and Cathie Lloyd (eds.), *Rethinking Anti-racisms: From theory to practice*, London & New York: Routledge, 2002, pp.1-21
- Appadurai, Arjun, 'Disjuncture and Difference in the Global Cultural Economy', in Braziel & Mannur, *Theorizing Diaspora*, pp.25-48
- Armstrong, Pat and Armstrong, Hugh, 'Beyond Sexless Class and Classless Sex: Towards Feminist Marxism', in R. Hamilton and M. Barrett (eds.), *The Politics of Diversity: Feminism, Marxism and Nationalism*, Montreal: Book Centre, 1986, pp.208-40
- Badura, Bohumil, 'Sobre la inmigración alemana en Cuba durante la primera mitad del siglo XIX', *Ibero-Americana Pragensia*, Yrs 9 & 10 (1975 & 76), pp.71-105 & pp.111-36
- Bailey, Victor (ed.), *Policing and Punishment in the Nineteenth Century*, London: Croom Helm, 1981
- Baines, Dudley, *Emigration from Europe, 1815-1930*, Basingstoke: Macmillan, 1991
- Bak, Joan, 'Class, Ethnicity, and Gender in Brazil: the Negotiation of Workers' Identities in Porto Alegre's 1906 Strike', *Latin American Research Review*, 35:3 (2000), pp.83-123

- Balibar, Etienne and Wallerstein, Immanuel, *Race, Nation, Class: Ambiguous Identities*, London: Verso, 1988
- Barcia, María del Carmen, 'La esclavitud de las plantaciones, una relación secundaria', in *Temas acerca de la esclavitud*, Havana: Editorial de Ciencias Sociales, 1986, pp.96-116
- Barcia, María del Carmen, *Burguesía esclavista y abolición*, Havana: Editorial de Ciencias Sociales, 1987
- Barcia Paz, Manuel, 'Entre amenazas y quejas: un acercamiento al papel jugado por los diplomáticos ingleses en Cuba durante la conspiración de la Escalera, 1844', *Colonial Latin America Historical Review*, 10:1 (Winter 2001), pp.1-25
- Barcia Zequeira, María del Carmen and Barcia Paz, Manuel, 'La Conspiración de la Escalera : el precio de una traición', *Catauro: Revista Cubana de Antropología*, 2:3 (2001), pp.199-204
- Barnet, Miguel, 'The Culture That Sugar Created', *Latin American Literary Review*, 8:16 (Spring-Summer 1980), p.38
- Barrett, Michele, *Women's Oppression Today*, London: Verso, 1980
- Barringer, Tim, 'Images of Otherness and the Visual Production of Difference: Race and Labour in Illustrated Texts, 1850-1865', in Shearer West (ed.), *The Victorians and Race*, Brookfield Vermont: Ashgate, 1996
- Barth, R., *Ethnic Groups and Boundaries: The Social Organisation of Cultural Difference*, Norway: Universitetsforlaget, 1969
- Basch, Linda; Glick Schiller, Nina and Szanton Blanc, Cristina, *Nations Unbound: Transnational Projects, Postcolonial Predicaments, and Deterritorialized Nation States*, Langhorne, Pa.: Gordon & Breach, 1994
- Beckles, Hilary McD., 'Historicizing Slavery in West Indian Feminisms', *Feminist Review*, 59 (1998), pp.34-56
- Beckles, Hilary McD., *Natural Rebels: A Social History of Enslaved Black Women in Barbados*, London: Zed Books, 1989
- Belchem, John, *Industrialization and the Working Class: The English Experience, 1750-1900*, Aldershot: Scolar Press, 1990
- Belshaw, J. D., *British Coalminers on Vancouver Island, 1848-1900*, PhD Thesis, London School of Economics, 1987
- Benítez, José A., *Las Antillas : Colonización, Azúcar e Imperialismo*, Havana: Casa de las Américas, 1977
- Benítez Rojo, Antonio, 'Power/Sugar/Literature: Towards a Reinterpretation of Cubanness', *Cuban Studies*, 16 (1986), pp.9-21
- Bergad, Laird W., 'The Economic Viability of Sugar Production Based on Slave Labor in Cuba: 1859-1878', *Latin American Research Review*, 24:1, 1989, pp. 95-113
- Bergad, Laird W., *Cuban Rural Society in the Nineteenth Century: the social and economic history of monoculture in Matanzas*, Princeton, NJ: Princeton University Press, 1990
- Bergad, Laird W.; Iglesias García, Fé and Barcia, María del Carmen, *The Cuban Slave Market, 1790-1880*, Cambridge: Cambridge University Press, 1995
- Best, Geoffrey, *Mid-Victorian Britain, 1851-1875*, London: Fontana, 1971

- Bhabha, Homi, *Nation and Narration: The Location of Culture*, New York: Routledge, 1994
- Blackburn, Robin, *The Overthrow of Colonial Slavery, 1776-1848*, London: Verso, 1988
- Blackburn, Robin, *The Making of New World Slavery: From the Baroque to the Modern, 1492-1800*, London: Verso, 1997
- Bolland, O. Nigel, *The Formation of a Colonial Society: Belize, from Conquest to Crown Colony*, Baltimore & London: Johns Hopkins University Press, 1977
- Bolland, O. Nigel, *Colonialism and Resistance in Belize: Essays in Historical Sociology*, Benque Viejo del Carmen, Belize: Cubola Publications, 1988
- Bolland, O. Nigel, 'Creolisation and Creole Societies: A Cultural Nationalist View of Caribbean Social History', in A. Hennessy (ed.), *Intellectuals in the twentieth century Caribbean*, Vol.1, London: Macmillan, 1992
- Bonnett, Alastair, 'How the British Working Class Became White: The Symbolic (Re)formation of Racialized Capitalism', *Journal of Historical Sociology*, 11:3 (1998), pp.316-40
- Bonnett, Alastair, 'Who was White? The Disappearance of Non-European White Identities and the Formation of European Racial Whiteness', *Ethnic and Racial Studies*, 21:6 (1998), pp.1029-55
- Bonnet, Aubrey W. and Watson, C. Llewellyn (eds.), *Emerging Perspectives on the Black Diaspora*, Lanham, MD: University Press of America, 1990
- Bottomley, Gill; Martin, Jeannie and Lepervanche, Marie de (eds.), *Intersexions: Gender/Class/ Culture/Ethnicity*, Sydney: Allen & Unwin, 1991
- Bourdieu, Pierre, *Outline of a Theory of Practice*, trans. Richard Nice, Cambridge: Cambridge University Press, 1977
- Bourdieu, Pierre, *The Logic of Practice*, Cambridge: Polity Press, 1990
- Bourdieu, Pierre, 'The Forms of Capital', in A. H. Halsey, H. Lauder, P. Brown and A. Stuart Wells (eds.), *Education: Culture, Economy, Society*, Oxford: Oxford University Press, 1997, pp.46-58
- Boyd, Monica, 'Family and Personal Networks in International Migration: Recent Developments and New Agendas', *International Migration Review*, 13:3 (1989), pp.638-70
- Bradbury, Malcolm, *Dangerous Pilgrimages*, London: Penguin, 1996
- Brah, Avtar, *Cartographies of Diaspora: Contesting Identities*, London: Routledge, 1996
- Braithwaite, Edward, *The Development of Creole Society in Jamaica, 1770-1820*, Oxford: Clarendon Press, 1971
- Braudel, Fernand, *The Mediterranean, and the Mediterranean World in the age of Philip II*, 2 vols, London: Fontana, 1975 [1949]
- Braudel, Fernand, *Afterthoughts on Material Civilization and Capitalism*, trans. Patricia Ranun, Baltimore: Johns Hopkins University Press, 1977
- Bravo Moreno, Ana, *Gender, Migration and Identity: Spanish Migrant Women in London*, PhD Thesis, University of London, 1999
- Braziel, Jana Evans and Mannur, Anita (eds.), *Theorizing Diaspora*, Oxford: Blackwell, 2003

- Briggs, Asa, *The Age of Improvement*, London: Longmans, 1960
- Burnett, John (ed.), *Useful Toil: Autobiographies of Working People from the 1820s to the 1920s*, London: Allen Lane, 1974
- Butel, Paul, *The Atlantic*, London & New York: Routledge, 1999
- Callinicos, Alex, *Making History: Agency, Structure and Change in Social Theory*, Cambridge: Polity Press, 1987
- Carr, Barry, 'Identity, Class and Nation: Black Immigrant Workers, Cuban Communism and the Sugar Industry, 1925-1934', *Hispanic American Historical Review*, 78:1 (February 1998)
- Carreras, Julio Angel, *Cuba: contradicciones de clases en el siglo XIX*, Havana: Editorial de Ciencias Sociales, 1985
- Casanovas, Joan, 'Slavery, the Labour Movement and Spanish Colonialism in Cuba, 1850-1890', *International Review of Social History*, 40 (1995), pp.367-82
- Casanovas, Joan, *Bread, or Bullets! Urban Labor and Spanish Colonialism in Cuba, 1850-1898*, Pittsburgh: University of Pittsburgh Press, 1998
- Cattell, John, 'Edward Snell's Diary: A Journeyman Engineer in Bath in the 1840s', *Bath History*, 9 (2002), pp.104-25
- Cepero Bonilla, Raúl, *Azúcar y abolición: apuntes para una historia crítica del abolicionismo*, Havana: Editorial Cenit, 1948
- Chamberlain, Mary, *Narratives of Exile and Return*, London & Basingstoke: Macmillan, 1997
- Chamberlain, Mary (ed.), *Caribbean Migration, Globalised Identities*, London: Routledge, 1998
- Chamberlain, Mary (ed.), *Caribbean Families in Britain and the Trans-Atlantic World*, London & Oxford: Macmillan, 2001
- Chambers, Iain, *Migrancy, Culture, Identity*, London & New York: Routledge, 1994
- Childs, Matt D., 'The Aponte Rebellion of 1812 and the Transformation of Cuban Society: race, slavery and freedom in the Atlantic World', PhD thesis, University of Texas at Austin, 2001
- Childs, Matt D. "'A Black French General arrived to conquer the Island": images of the Haitian Revolution in Cuba's 1812 Aponte Rebellion', in David Geggus (ed.), *The Impact of the Haitian Revolution in the Atlantic World*, Columbia, SC: University of South Carolina Press, 2001, pp.135-56
- Chomsky, Aviva, 'Barbados or Canada? Race, Immigration, and Nation in Early Twentieth Century Cuba', *Hispano-American Historical Review*, 80:3 (2000), pp.415-62
- Cohen, Robin, *The Fuzzy Frontiers of Identity*, London: Longman, 1994
- Cohen, Robin (ed.), *The Cambridge Survey of World Migration*, Cambridge: Cambridge University Press, 1995
- Cok Marquéz, Patria, 'La introducción de los ferrocarriles portátiles en la industria azucarera, 1870-1880', *Santiago*, 4 (March 1981), pp.137-47
- Colley, Linda, *Britons: Forging the Nation*, New Haven: Yale University Press, 1992

- Corbitt, D. C., 'Immigration in Cuba', *Hispanic American Historical Review*, 22:2 (1942), pp.240-308
- Corbitt, Duvon, *A Study of the Chinese in Cuba, 1847-1947*, Wilmore, Ky: Ashbury College, 1971
- Cordero-Gúzman, Héctor and Grosfoguel, Ramón, 'The Demographic and Socio-economic Characteristics of Post-1965 Immigrants to New York City: A Comparative Analysis by National Origin', *International Migration*, 38:4 (2000), pp.41-79
- Cordero-Guzmán, Héctor R.; Smith, Robert C. and Grosfoguel, Ramón (eds.), *Migration, Transnationalization, & Race in a Changing New York*, Philadelphia: Temple University Press, 2001
- Coronil, Fernando, 'Transculturation and the Politics of Theory: Countering the Center, Cuban Counterpoint', introduction to Ortiz, *Cuban Counterpoint*
- Crossick, Geoffrey, *An Artisan Elite in Victorian Society: Kentish London, 1840-1880*, London: Croom Helm, 1978
- Cué Fernández, Daisy, 'Plácido y la conspiración de la Escalera', *Santiago*, 42 (June 1981), pp.145-206
- Curry-Machado, Jonathan, *Running from Albion: British and Irish migrants in nineteenth century Cuba*, Masters dissertation, University of North London, 1999
- Curry-Machado, Jonathan, 'Catalysts in the Crucible: Kidnapped Caribbeans, Free Black British Subjects, and Migrant British Machinists in the Failed Cuban Revolution of 1843', in Naro (2003), pp.123-42
- Curry-Machado, Jonathan, 'Beneath and Beyond the Nation: Cuba at the Interstices of Nineteenth Century Trans-national Networks', paper given at 'Beneath and Beyond the Nation' workshop, Institute of Latin American Studies, London, 13th June 2003
- Curry-Machado, Jonathan, 'How Cuba Burned with the Ghosts of British Slavery: Race, Abolition and the Escalera', *Slavery and Abolition*, forthcoming
- Curtin, Philip D., *Two Jamaicas: the Role of Ideas in a Tropical Colony, 1830-1865*, Cambridge, Mass: Harvard University Press, 1955
- Curtin, Philip D., *The Atlantic Slave Trade: a census*, Madison: University of Wisconsin Press, 1970
- Curtin, Philip D., *Cross-Cultural Trade in World History*, Cambridge: Cambridge University Press, 1984
- Curtin, Philip D., *Death by Migration: Europe's Encounter with the Tropical World in the Nineteenth Century*, Cambridge: Cambridge University Press, 1989
- Curtin, Philip D., *The Rise and Fall of the Plantation Complex: Essays in Atlantic History*, Cambridge: Cambridge University Press, 1990
- Curtin, Philip D., *The World and the West: The European Challenge and the Overseas Response in the Age of Empire*, Cambridge: Cambridge University Press, 2000
- De la Fuente, Alejandro, 'Myths of Racial Democracy: Cuba, 1900-1912', *Latin American Research Review*, 34:3 (1999), pp.39-73
- De la Fuente, Alejandro, *A Nation For All: Race, Inequality, and Politics in Twentieth-Century Cuba*, Chapel Hill & London: University of North Carolina Press, 2001

- Deerr, Noel, *Cane Sugar: A Textbook on the Agriculture of the Sugar Cane, the Manufacture of Cane Sugar, and the Analysis of Sugar House Products*, Manchester: Norman Rodger, 1911
- Deerr, Noel, *The History of Sugar*, 2 vols., London: Chapman & Hall, 1949/50
- Demuth, Andreas, 'Some Conceptual Thoughts on Migration Research', in Biko Agozino (ed.), *Theoretical and Methodological Issues in Migration Research: interdisciplinary, intergenerational and international perspectives*, Aldergate: Ashgate, 2000, pp.21-58
- Denslow, David, *Sugar Production in Northeastern Brazil and Cuba, 1858-1908*, New York & London: Garland Publishing, 1987
- Deschamps Chapeaux, Pedro, *El negro en la economía habanera del siglo XIX*, Havana: Unión de Artistas y Escritores de Cuba, 1971
- Deschamps Chapeaux, Pedro, *Los cimarrones urbanos*, Havana: Editorial de Ciencias Sociales, 1983
- Deschamps Chapeaux, Pedro and Pérez de la Riva, Juan, *Contribución a la historia de la gente sin historia*, Havana: Editorial de Ciencias Sociales, 1974
- Drayton, Richard, *Nature's Government: Science, Imperial Britain, and the 'Improvement' of the World*, New Haven & London: Yale University Press, 2002
- Drescher, Seymour, *Econocide: British Slavery in the Era of Abolition*, Pittsburgh: University of Pittsburgh Press, 1977
- Duffy, John, *The Sanitarians: A History of American Public Health*, Urbana: University of Illinois Press, 1990
- Duharte Jiménez, Rafael, 'La huella de la emigración francesa en Santiago de Cuba', *Del Caribe*, 10 (1987)
- Dye, Alan, *Cuban Sugar in the Age of Mass Production: Technology and the Economics of the Sugar Central, 1899-1929*, Stanford, Ca: Stanford University Press, 1998
- Eltis, David, 'The slave economies of the Caribbean: structure, performance, evolution and significance', in Knight, *General History*, pp.105-68
- Eltis, David, 'Free and Coerced Migrations: the Atlantic in Global perspective', in Solvi Sogner (ed.), *Making Sense of Global History*, Oslo: Universitetsforlaget, 2001, pp.189-203
- Eltis, David, 'The Volume and Structure of the Transatlantic Slave Trade: A Reassessment', *The William and Mary Quarterly*, 58:1 (January 2001)
- Eltis, David (ed.), *Coerced and Free Migration: Global Perspective*, Stanford: Stanford University Press, 2002
- Eltis, David; Behrendt, Stephen D.; Richardson, David and Klein, Herbert S. (eds.), *The Transatlantic Slave Trade Database on CD-ROM*, Cambridge & New York: Cambridge University Press, 1999
- Ely, Roland T., *Comerciantes cubanos del siglo XIX*, Havana, 1961
- Ely, Roland T., *Cuando reinaba su Majestad el Azúcar*, Havana: Imágen Contemporánea, 2001 [1963]

- Emmer, P. C., 'European Expansion and Migration: The European Colonial Past and Intercontinental Migration; An Overview', in Emmer & Mörner, *European Expansion*, pp.1-12
- Emmer, P. C., 'Immigration into the Caribbean: The Introduction of Chinese and East Indian Indentured Labourers between 1839 and 1917', in Emmer & Mörner, *European Expansion*, pp.245-76
- Emmer, P. C. and Mörner, M., *European Expansion and Migration: Essays on the Intercontinental Migration from Africa, Asia, and Europe*, New York & Oxford: Berg, 1992
- Engerman, Stanley L. and Higman, B. W., 'The demographic structure of the Caribbean slave societies in the eighteenth and nineteenth centuries', in Knight, *General History*, pp.45-104
- Erickson, Charlotte, *Emigration from Europe, 1815-1914 – select documents*, London: Adam & Charles Black, 1976
- Erickson, Charlotte, *Leaving England: Essays on British Emigration in the Nineteenth Century*, Ithaca & London: Cornell University Press, 1994
- Fairrie, Geoffrey, *Sugar*, Liverpool: Fairrie & Co., 1925
- Fenton, Steve, *Ethnicity: Racism, Class and Culture*, London: Macmillan, 1999
- Fernández, Susan J., *Encumbered Cuba: Capital Markets and Revolt, 1878-1895*, Gainesville: University Press of Florida, 2002
- Fernández de Pinedo Echevarría, Nadia, *Las balanzas del comercio exterior de La Habana, 1803-1807*, Bilbao: Universidad del País Vasco, 2000
- Ferrer, Ada, *Insurgent Cuba: race, nation, and revolution, 1868-1898*, Chapel Hill & London: University of North Carolina Press, 1999
- Fogel, Robert William, *Without Consent or Contract: The Rise and Fall of American Slavery*, New York: W. W. Norton & Company, 1989
- Fortier, Anne-Marie, *Migrant Belongings: Memory, Space, Identity*, Oxford & New York: Berg, 2000
- Foucault, Michel, *The Archaeology of Knowledge*, London: Routledge, 1972
- Franco, José Luciano, *Ensayos históricos*, Havana: Editorial de Ciencias Sociales, 1974
- Franco, José Luciano, 'La conspiración de Aponte, 1812', in Franco (1974)
- Franco, José Luciano, *Comercio clandestino de esclavos*, Havana: Editorial de Ciencias Sociales, 1996
- Frankel, J. and Zipperstein, S. (eds.), *Assimilation and Community: the Jews in Nineteenth Century Europe*, Cambridge: Cambridge University Press, 1992
- Frederic, H., *The New Exodus: A Study of Israel in Europe*, New York: Arno Press, 1970
- Freundlieb, Dieter, 'Foucault's Theory of Discourse and Human Agency', in Colin Jones & Roy Porter (eds.), *Reassessing Foucault: Power, Medicine and the Body*, London: Routledge, 1994, pp.152-80
- Friedlaender, Heinrich, *Historia económica de Cuba*, Havana, 1944
- Gabriel, J. and Ben-Tovim, G., 'Marxism and the Concept of Racism', *Economy and Society*, 7:2 (1978), pp.1818-54

- García Gallo, Gaspar Jorge, 'La evolución económica- el contrabando y la ganadería - comienzos de la industria azucarera', *Cuadernos de Historia Habanera*, No.10, 1937
- Giddens, Anthony, *The Constitution of Society*, Cambridge: Polity Press, 1984
- Gikandi, Simon, *Maps of Englishness: Writing Identity in the Culture of Colonialism*, New York: Columbia University Press, 1996
- Gilroy, Paul, *The Black Atlantic: Modernity and Double Consciousness*, London: Verso, 1993
- Giovannetti, Jorge, *Black British Subjects in Cuba: Race, Ethnicity, Nation and Identity in the Migratory Experience, 1898-1938*, PhD thesis, University of North London, 2001
- Goizueta-Mimó, Felix, *Bitter Cuban Sugar: Monoculture and Economic Dependence from 1825-1899*, New York & London: Garland Publishing, 1987
- González del Valle, Francisco, *La conspiración de la Escalera. I. José de la Luz y Caballero*, Havana, 1925
- Gray, Robert, *The Aristocracy of Labour in Nineteenth Century Britain, c.1850-1900*, London: Macmillan, 1981
- Green, William A., *British Slave Emancipation: The Sugar Colonies and the Great Experiment, 1830-1865*, Oxford: Clarendon Press, 1976
- Gregg, Robert, 'Class, Culture and Empire: E P Thompson and the Making of Social History', *Journal of Historical Sociology*, 11:4 (December 1998), pp.419-60
- Grosfoguel, Ramón, 'Colonial Caribbean Migrations to France, The Netherlands, Great Britain, and the United States', *Ethnic and Racial Studies*, 20:3 (1997), pp.594-612
- Grosfoguel, Ramón and Cordero-Gúzman, Héctor, 'Social Capital, Context of Reception, and Transnationalism: Recent Approaches to International Migration', *Diaspora* 7:3 (1998), pp.351-68
- Guerra y Sánchez, Ramiro, *Azúcar y población en las Antillas*, Havana: Editorial de Ciencias Sociales, 1970 [1927]
- Gulati, L., *In the Absence of their Men*, New Delhi: Sage, 1993
- Habakkuk, H. J., *American and British Technology in the Nineteenth Century: The Search for Labour-saving Inventions*, Cambridge: Cambridge University Press, 1962
- Hall, Catherine, 'Missionary Stories: Gender and Ethnicity in England in the 1830s and 1840s', in Lawrence Grossberg, Cary Nelson and Paula A. Treichler (eds.), *Cultural Studies*, New York & London: Routledge, 1992
- Hall, Catherine, *Defining the Victorian Nation: Class, Race, Gender and the British Reform Act*, Cambridge: Cambridge University Press, 2000
- Hall, Catherine, *Civilising Subjects: Metropole and Colony in the English Imagination, 1830-1867*, Cambridge: Polity, 2002
- Hall, Gwendolyn Midlo, *Social Control in Slave Plantation Societies: A Comparison of St Domingue and Cuba*, Baltimore: Johns Hopkins University Press, 1971
- Hall, Stuart, *Policing the Crisis: Mugging, the State and Law and Order*, London: Macmillan, 1978
- Hall, Stuart, 'Race, articulation and societies structured in dominance', in *Sociological theories: race and colonialism*, UNESCO, 1980

- Hall, Stuart, 'Old and New Identities, Old and New Ethnicities', in Anthony D. King (ed.), *Culture, Globalization and the World-System*, Binghampton: Macmillan, 1991
- Hall, Stuart, 'Introduction: Who Needs Identity?', in Stuart Hall and P. Du Gay (eds.), *Questions of Cultural Identity*, London: Sage, 1996
- Hall, Stuart, 'Cultural Identity and Diaspora', in Braziel & Mannur (2003), pp.233-46
- Hall, Stuart and Jefferson, Tony, *Resistance through Rituals: Youth Subcultures in Post-War Britain*, London: Routledge, 1990
- Harker, Richard; Wilkes, Chris and Mahar, Cheleen (eds.), *An Introduction to the Work of Pierre Bourdieu: the Practice of Theory*, London: Macmillan, 1990
- Harker, Richard; Wilkes, Chris and Mahar, Cheleen, 'The Basic Theoretical Position', in Harker *et al.*, *Practice of Theory*
- Harrison, Michelle, *King Sugar: Jamaica, the Caribbean and the World Sugar Economy*, London: Latin America Bureau, 2001
- Hart, Keith (ed.), *Women and the Sexual Division of Labour in the Caribbean*, Kingston: Graduate School of Social Sciences, University of West Indies, Mona, 1989
- Headrick, Daniel R., *The Tools of Empire: technology and European imperialism in the nineteenth century*, New York & Oxford: Oxford University Press, 1981
- Headrick, Daniel R., *The Tentacles of Progress: technology transfer in the age of imperialism, 1850-1940*, New York & Oxford: Oxford University Press, 1988
- Heitmann, John Alfred, *The Modernization of the Louisiana Sugar Industry, 1830-1910*, Baton Rouge & London: Louisiana State University Press, 1987
- Henderson, F. J. R., 'Scots in Cuba', *The Scottish Genealogist*, 11:4 (November 1964), p.20
- Henderson, F. J. R., 'Cuba: English and Irish Immigrants', *The Scottish Genealogist*, 17:2 (1970), pp.62-4
- Hernández y Sánchez-Barba, Mario, 'David Turnbull y el problema de la esclavitud en Cuba', *Anuario de estudios americanos*, 14 (1957)
- Hill Collins, Patricia, *Black Feminist Thought: Knowledge, Consciousness and the Politics of Empowerment*, London: Unwin Hyman, 1990
- Hobsbawm, Eric, *The Age of Capital, 1848-1875*, London: Weidenfeld & Nicolson, 1962
- Hobsbawm, Eric, *Industry and Empire*, London: Penguin, 1969
- Hobsbawm, Eric, *The Age of Revolution: Europe 1789-1848*, London: Weidenfeld & Nicolson, 1975
- Hobsbawm, Eric, *Labouring Men: Studies in the History of Labour*, London: Weidenfeld & Nicolson, 1986
- Hobsbawm, Eric, *The Age of Empire, 1875-1914*, London: Weidenfeld & Nicolson, 1987
- Hobsbawm, Eric, *Nations and Nationalism since 1780: Programme, Myth, Reality*, Cambridge: Cambridge University Press, 1990
- Hoetink, Harry, *The Two Variants in Caribbean Race Relations: A Contribution to the Sociology of Segmented Societies*, London: Oxford University Press, 1967
- Hopkins, Terence K. and Wallerstein, Immanuel, *World Systems Analysis, Theory and Methodology*, Beverley Hills & London: Sage, 1982

- Horsman, Reginald, *Race and Manifest Destiny: The Origins of American Racial Anglo-Saxonism*, Cambridge, Mass. & London: Harvard University Press, 1981
- Hungry Wolf, Adolf, *Trains of Cuba*, British Columbia: Canadian Caboose Press, 1996
- Hyslop, Jonathan, 'The Imperial Working Class Makes Itself 'White': White Labourism in Britain, Australia and South Africa before the First World War', *Journal of Historical Sociology*, 12:4 (1999), pp.398-421
- Ibarra, Jorge, *Nación y cultura nacional*, Havana: Editorial Letras Cubanas, 1981
- Iglesias García, Fé, 'The Development of Capitalism in Cuban Sugar Production, 1860-1900, in Moreno Fragnals *et al.* (1985), pp.54-76
- Iglesias García, Fé, 'Changes in Cane Cultivation in Cuba, 1860-1900', *Social and Economic Studies*, 37:1-2 (March-June 1988)
- Iglesias García, Fé, *Del ingenio al central*, San Juan: Editorial de la Universidad de Puerto Rico, 1998
- Iglesias, Fé, 'Historiography of Cuba', in B. W. Higman (ed.), *General History of the Caribbean. Vol. VI – Methodology and Historiography of the Caribbean*, London & Oxford: UNESCO/Macmillan, 1999
- Ignatiev, Noel, *How the Irish became White*, New York & London: Routledge, 1995
- Inkori, Joseph and Engerman, Stanley L. (eds.), *The Atlantic Slave Trade: Effects on Economies, Societies and Peoples in Africa, the Americas, and Europe*, Durham, NC: Duke University Press, 1991
- Irwin, G.W. (ed.), *Africans Abroad: A Documentary History of the Black Diaspora in Asia, Latin America and the Caribbean During the Age of Slavery*, New York: Columbia University Press, 1977
- Jacobson, Matthew Frye, *Whiteness of a Different Color: European Immigrants and the Alchemy of Race*, Cambridge, Mass. & London: Harvard University Press, 1998
- Jacobson, Matthew Frye, *Barbarian Virtues: The United States Encounters Foreign Peoples at Home and Abroad, 1876-1917*, New York: Hill and Wang, 2000
- Janiewski, Dolores, 'Gendering, Racializing and Classifying: Settler Colonization in the United States, 1590-1990', in Stasiulis & Yuval-Davis (1995)
- Jenks, Leland, *Our Cuban Colony*, New York: Vanguard Press, 1928
- Jeremy, David J., 'Innovation in American Textile Technology during the early 19th Century', *Technology and Culture*, 14:1 (January 1973), pp.40-76
- Jeremy, David J., 'Damning the Flood: British Government efforts to check the outflow of technicians and machinery, 1780-1843', *Business History Review*, 51:1 (Spring 1977), pp.1-34
- Jeremy, David J., *Transatlantic Industrial Revolution: The Diffusion of Textile Technologies between Britain and America, 1790-1830s*, Cambridge, MA: MIT Press, 1981
- Jeremy, David J., *Artisans, Entrepreneurs and Machines*, Aldershot: Ashgate, 1998
- Jeremy, David J. and Stapleton, Darwin H., 'Transfers between Culturally-related Nations: The Movement of Textile and Railroad Technologies between Britain and the United States, 1780-1840', in David J. Jeremy (ed.), *International Technology Transfer: Europe, Japan and the USA, 1700-1914*, Aldershot & Brookfield: Edward Elgar, 1991, pp.31-48

- Johnson, Sherry, *The Social Transformation of Eighteenth-Century Cuba*, Gainesville: University Press of Florida, 2001
- Jones, L. and Scard, F. I., *Manufacture of Cane Sugar*, London: Duckworth, 1909 & 1921
- Judd, Denis, *Empire: The British Imperial Experience from 1765 to the Present*, London: Harper Collins, 1996
- Julios, Chris, 'Bilingualism and the Construction of a new 'American' identity', in Kershen, *Question of Identity*, pp.271-93
- Kershen, Anne J. (ed.), *A Question of Identity*, Aldershot: Ashgate, 1998
- King, Desmond, *Making Americans: Immigration, Race, and the Origins of the Diverse Democracy*, Cambridge, Mass. & London: Harvard University Press, 2000
- Klein, Herbert S., *Slavery in the Americas: a comparative study of Virginia and Cuba*, Chicago: University of Chicago Press, 1967
- Knight, Franklin W., *Slave Society in Cuba during the Nineteenth Century*, Madison: University of Wisconsin Press, 1970
- Knight, Franklin W., in Frank McGlyn, and Seymour Drescher, (eds.), *The Meaning of Freedom: economics, culture and politics after slavery*, Pittsburgh: University of Pittsburgh Press, 1992
- Knight, Franklin W. (ed.), *General History of the Caribbean. Volume III: The slave societies of the Caribbean*, London: UNESCO & Macmillan, 1997
- Knight, Franklin and Liss, Peggy (eds.), *Atlantic Port Cities: Economy, Culture and Society in the Atlantic World, 1650-1850*, Knoxville: University of Tennessee Press, 1991
- Knight, Roger, 'Sugar, Technology, and Colonial Encounters: Refashioning the Industry in the Netherlands Indies, 1800-1942', *Journal of Historical Sociology*, 12:3 (1999), pp.218-50
- Laclau, Ernesto and Mouffe, Chantal, *Hegemony and Socialist Strategy: Towards a Radical Democratic Politics*, London: Verso, 2001
- Le Riverend, Julio, *Historia Económica de Cuba*, Havana: Editorial de Ciencias Sociales, 1967
- Le Riverend, Julio, *et al.*, *Temas acerca de la esclavitud*, Havana: Editorial de Ciencias Sociales, 1988
- Linebaugh, Peter and Rediker, Marcus, *The Many-Headed Hydra: the Hidden History of the Revolutionary Atlantic*, London: Verso, 2000
- Liss, Peggy K., *Atlantic Empires: the Network of Trade and Revolution, 1713 - 1826*, Baltimore & London: Johns Hopkins University, 1983
- Lock, C. G. W. and Harland, R. H., *Sugar growing and refining: a comprehensive treatise*, London: Spon, 1882
- López Sánchez, José, *Cuba, medicina y civilización: siglos XVII y XVIII*, Havana: Editorial Científico-Técnica, 1995
- Lovejoy, Paul E., 'The Volume of the Atlantic Slave Trade: A Synthesis', *Journal of African History*, 23 (1982)
- Lovejoy, Paul E. (ed.), *Identity in the Shadow of Slavery*, London & New York: Continuum, 2000

- Lovejoy, Paul E., 'Identifying Enslaved Africans in the African Diaspora', in Lovejoy, *Identity in Shadow*, pp.1-29
- Lummis, Trevor, *The Labour Aristocracy, 1851-1914*, Aldershot: Scolar Press, 1994
- Lux, William R., 'French colonization in Cuba, 1791-1809', *The Americas*, 29/1, 1972, pp.57-61
- Maingot, Anthony P., 'Haiti and the terrified consciousness of the Caribbean', in Oostindie, *Ethnicity in the Caribbean*, pp.53-80
- Maluquer de Motes, Jordi, *Nación e inmigración: los españoles en Cuba (ss.XIX y XX)*, Asturias: Ediciones Jucar, 1992
- Márquez, José de J., 'Plácido y los conspiradores de 1844', *Revista Cubana*, 20 (1894)
- Maroney, Heather Jon and Luxton, Meg (eds.), *Feminism and Political Economy*, Toronto: Methuen, 1987
- Marrero, Levi, *Cuba: economía y sociedad*, 12 vols, Madrid, 1973-86
- Marshall, Oliver, *European Immigration and Ethnicity in Latin America: a bibliography*, London: ILAS, 1991
- Marshall, Oliver (ed.), *English-speaking Communities in Latin America*, London: Institute of Latin American Studies, 2000
- Marshall, Oliver, 'Imagining Brazil: The Recruitment of English Labourers as Brazilian colonos', in Marshall, *English-speaking Communities*, pp.233-60
- Martinez-Alier, Verena, *Marriage, Class and Colour in Nineteenth Century Cuba: A Study of Racial Attitudes and Sexual Values in a Slave Society*, Cambridge: Cambridge University Press, 1974
- Martínez-Fernández, Luis, 'The Sweet and the Bitter: Cuban and Puerto Rican Responses to the Mid-nineteenth-century Sugar Challenge', *New West Indian Guide*, 67 (1993), pp.47-63
- Martínez-Fernández, Luis, *Torn Between Empires: Economy, Society and Patterns of Political Thought in the Hispanic Caribbean, 1840-1878*, Athens & London: University of Georgia Press, 1994
- Martínez-Fernández, Luis, *Fighting Slavery in the Caribbean: The Life and Times of a British Family in Nineteenth-Century Havana*, Armonk, NY & London: M. E. Sharpe, 1998
- Martínez-Fernández, Luis, *Protestantism and Political Conflict in the Nineteenth-Century Hispanic Caribbean*, New Brunswick, NJ: Rutgers University Press, 2002
- Marx, Karl & Engels, Frederick, *Selected Works*, London: Lawrence & Wishart, 1970
- McKenna, Patrick, 'The Formation of Hiberno-Argentine Society', in Marshall, *English-speaking Communities*, pp.81-104
- McKenna, Patrick, 'Irish Migration to Argentina', in O'Sullivan, *The Irish World-Wide*, pp.63-83
- McLean, Angus, *Local Industries of Glasgow and the West Coast of Scotland*, 1901
- McLeod, Marc C., 'Undesirable Aliens: Race, Ethnicity and Nationalism in the Comparison of Haitian and British West Indian Immigrant Workers, 1912-1939', *Journal of Social History*, 31:3, 1998

- Meadows, R. Darrell, 'Engineering Exile: Social Networks and the French Atlantic Community, 1789-1809', *French Historical Studies*, 23:1 (Winter 2000), pp.67-102
- Miles, Bob, 'Class, Race and Ethnicity: A Critique of Cox's Theory', *Ethnic and Racial Studies*, 3:2 (1980), pp.169-87
- Miles, Robert, *Racism and Migrant Labour: a Critical Text*, London: Routledge & Kegan Paul, 1982
- Miles, Robert, *Capitalism and Unfree Labour: Anomaly or Necessity?* London: Tavistock Publications, 1987
- Miller, Kerby, *Emigrants and Exiles: Ireland and the Irish Exodus to North America*, New York: Oxford University Press, 1985
- Miller, Rory, *Britain and Latin America in the Nineteenth and Twentieth Centuries*, London: Longman, 1993
- Mintz, Sidney W., 'Slavery and the Slaves', *Caribbean Studies*, 8:4 (1969)
- Mintz, Sidney W., 'The Caribbean as a Socio-cultural Area', in Michael M. Horowitz (ed.), *People and Cultures of the Caribbean*, Garden City: Natural History Press, 1971
- Mintz, Sidney W., *Sweetness and Power: the Place of Sugar in Modern History*, New York: Penguin, 1985
- Mintz, Sidney W., 'Slave Life on Caribbean Sugar Plantations: Some Unanswered Questions', in Stephan Palmié (ed.), *Slave Cultures and the Cultures of Slavery*, Knoxville: University of Tennessee Press, 1995
- Mintz, Sidney W., 'Enduring Substances, Trying Theories: The Caribbean Region as *Oikoumenê*', *Journal of the Royal Anthropological Institute*, 2:2 (1996), pp.289-311
- Mintz, Sidney W., 'Ethnic Difference, Plantation Sameness', in Oostindie (1996), pp.39-52
- Mintz, Sidney W., 'The Localization of Anthropological Practice: From Area Studies to Transnationalism', *Critique of Anthropology*, 18:2 (1998), pp.117-33
- Mohammed, Patricia (ed.), 'Rethinking Caribbean Difference', thematic issue of *Feminist Review*, 59 (1998)
- Mohammed, Patricia and Shepherd, Catherine (eds.), *Gender in Caribbean Development*, Trinidad & Tobago: University of the West Indies, Women and Development Studies Project, 1988
- Morales y Morales, *Inicidadores y primeros mártires de la revolución cubana*, Habana, 1901
- Moreno Fraginals, Manuel, *The Sugarmill: the socio-economic complex of sugar in Cuba, 1760-1860*, New York & London: Monthly Review Press, 1976
- Moreno Fraginals, Manuel, *El Ingenio*, 3 vols, Havana: Editorial de Ciencias Sociales, 1978
- Moreno Fraginals, Manuel, 'Plantations in the Caribbean: Cuba, Puerto Rico and the Dominican Republic in the late nineteenth century', in Moreno Fraginals *et al.*, *Between Slavery and Free Labor*, pp.3-21.
- Moreno Fraginals, Manuel, *Cuba/España; España/Cuba*, Barcelona: Crítica, 1995
- Moreno Fraginals, Manuel; Moya Pons, Frank and Engerman, Stanley L. (eds.), *Between Slavery and Free Labor: the Spanish-speaking Caribbean in the Nineteenth Century*, Baltimore: Johns Hopkins University Press, 1985

- Mörner, Magnus, *Adventurers and Proletarians: the story of migrants in Latin America*, Pittsburgh & Paris: University of Pittsburgh Press, 1985
- Moss, Michael S. and Hume, John R., *Workshop of the British Empire: Engineering and Shipbuilding in the West of Scotland*, London & Edinburgh: Heinemann, 1977
- Moyano Bozzani, Eduardo L., *La nueva frontera del azúcar: el ferrocarril y la economía cubana del siglo XIX*, Madrid: Consejo Superior de Investigaciones Científicas, 1991
- Murray, David, *Odious Commerce: Britain, Spain and the Abolition of the Cuban Slave Trade*, Cambridge: Cambridge University Press, 1980
- Nanton, Philip, 'Caribbean Identities and the British Context: Creolisation as a common framework', in Kershner, *Question of Identity*, pp.179-94
- Naranjo Orovio, Consuelo and García González, Armando, *Racismo e inmigración en Cuba en el siglo XIX*, Madrid: Doce Calles, 1993
- Naro, Nancy Priscilla (ed.), *Blacks, Coloureds and National Identity in Nineteenth-Century Latin America*, London: Institute of Latin American Studies, 2003
- Nauerby, Tom, *No Nation is an Island: Language, Culture, and National Identity in the Faroe Islands*, Aarhus: Aarhus University Press, 1996
- Newlands, J. A. R. and Newlands, B. E. R., *Sugar: A Handbook for Planters & Refiners*, London: Spon, 1909
- N'Zengou-Tayo, Marie-José, 'Fanm Se Poto Mitan: Haitian Woman, the Pillar of Society', *Feminist Review*, 59 (1998), pp.118-42
- Omi, Michael and Winant, Howard, *Racial Formation in the United States: from the 1960s to the 1990s*, New York: Routledge, 1994
- Oostindie, Gert (ed.), *Ethnicity in the Caribbean: Essays in honor of Harry Hoetink*, London & Basingstoke: Macmillan, 1996
- Oostindie, Gert, 'Introduction: Ethnicity, as ever?', in Oostindie, *Ethnicity in the Caribbean*, pp.1-21
- Ortiz, Fernando, *Hampa afro-cubana; los negros esclavos; estudio sociológico y de derecho público*, Havana: Revista Bimestre Cubana, 1916
- Ortiz, Fernando, *Los factores humanos de la cubanidad*, Havana: Molina, 1940
- Ortiz, Fernando, *Contrapunteo Cubano del Tabaco y el Azúcar*, Santa Clara: Universidad de las Villas, 1963
- Ortiz, Fernando, *Cuban Counterpoint, Tobacco and Sugar*, Durham & London: Duke University Press, 1995
- O'Sullivan, Patrick (ed.), *The Irish World Wide: History, Heritage, Identity, Vol.1: Patterns of Migration*, London & Washington: Leicester University Press, 1992
- Paquette, Robert L., *Sugar is Made with Blood: the Conspiracy of La Escalera and the Conflict between Empires over Slavery in Cuba*, Middletown, Conn.: Wesleyan University Press, 1988
- Pearsall, Judy and Trumble, Bill (eds.), *The Oxford English Reference Dictionary*, 2nd Edition, Oxford & New York: Oxford University Press, 1996
- Pérez de la Riva, Francisco, *El café: Historia de su cultivo y explotación en Cuba*, Havana: Jesús Montero, 1944

- Pérez de la Riva, Juan, *El barracón y otros ensayos*, Havana: Editorial de Ciencias Sociales, 1975
- Pérez de la Riva, Juan, *Los demógrafos de la dependencia*, Havana: Editorial de Ciencias Sociales, 1979
- Pérez, Jr., Louis A., 'Cuba and the United States : Origins and Antecedents of Relations, 1760s-1860s', *Cuban Studies*, 21 (1991), pp.57-82
- Pérez, Jr., Louis A. (ed.), *Slaves, Sugar and Colonial Society: Travel Accounts of Cuba, 1801-99*, Wilmington: Scholarly Resources, 1993
- Pérez, Jr., Louis A., *Cuba: Between Reform and Revolution*, 2nd edition, New York & Oxford: Oxford University Press, 1995
- Pérez, Louis A., *Winds of Change: Hurricanes and the Transformation of Nineteenth-Century Cuba*, Chapel Hill & London: University of North Carolina Press, 2001
- Pérez Sarduy, Pedro and Stubbs, Jean (eds.), *Afro Cuba, an Anthology of Cuban Writing on Race, Politics and Culture*, Melbourne: Latin American Bureau, 1993
- Pérez Sarduy, Pedro and Stubbs, Jean (eds.), *Afro-Cuban Voices*, Gainesville: University Press of Florida, 2000
- Petras, Elizabeth McLean, *Jamaican Labor Migration: White Capital and Black Labor, 1850-1930*, Boulder: Westview Press, 1988
- Plá, Josefina, *The British in Paraguay, 1850-1870*, Richmond: Richmond Publishing Co., 1976
- Pooley, Colin and Turnbull, Jean, *Migration and Mobility in Britain since the 18th Century*, London: UCL Press, 1998
- Pooley, Colin G. and Whyte, Ian D. (eds.), *Migrants, Emigrants and Immigrants: a social history of migration*, London: Routledge, 1991
- Pooley, Colin G. and Whyte, Ian D., 'Introduction: approaches to the study of migration and social change', in Pooley & Whyte, *Migrants, Emigrants and Immigrants*
- Portell Vilá, Herminio, *Historia de Cuba en sus relaciones con los Estados Unidos y España*, 4 vols., Havana: Jesús Montero, 1938-41
- Portell Vilá, Herminio, *Narciso López y su época*, 3 vols, Havana: Compañía Editora de Libros y Folletos, 1930-1958
- Porter, Robert P, *Industrial Cuba*, New York & London: The Knickerbocker Press, 1899
- Portuondo Zúñiga, Olga, *Santiago de Cuba: desde su fundación hasta la Guerra de los Diez Años*, Santiago de Cuba: Editorial Oriente, 1996
- Posel, Deborah, 'Rethinking the 'Race-Class Debate' in South African Historiography', *Social Dynamics*, 9:1 (1983), pp.50-66
- Pratt, Mary Louise, *Imperial Eyes: Travel Writing and Transculturation*, London & New York: Routledge, 1992
- Priestley, Philip, *Victorian Prison Lives*, London: Methuen, 1985
- Ramos Mattei, Andres A., 'The Role of Scottish Sugar Machinery Manufacturers in the Puerto Rican Plantation System: 1842-1909', *Scottish Industrial History*, 8:1 (1985), pp.20-30

- Rex, John, *Race Relations in Sociological Theory*, London: Weidenfeld & Nelson, 1970
- Rex, John, *Race, Colonialism and the City*, London: Routledge & Kegan Paul, 1973
- Roediger, David R., *The Wages of Whiteness: Race and the Making of the American Working Class*, London & New York: Verso, 1991
- Roediger, David R., *Towards the Abolition of Whiteness: Essays on race, politics, and working class history*, London & New York: Verso, 1994
- Sacks, Karen Brodtkin, 'Towards a Unified Theory of Class, Race and Gender', *American Ethnologist*, 16:3 (1989), pp.534-50
- Safa, Helen, *The Myth of the Male Breadwinner: Women and Industrialization in the Caribbean*, Boulder, CO: Westview Press, 1995
- Santamaría Garcíá, Antonio, *Sin azúcar no hay país: la industria azucarera y la economía cubana (1919-39)*, Sevilla: Universidad de Sevilla, 2002
- Sarracino, Rodolfo, *Inglaterra: sus dos caras en la lucha cubana por la abolición*, Havana: Editorial Letras Cubanas, 1989
- Satchell, Veront M., 'The early use of steam power in the Jamaican sugar industry, 1768-1810', *Transactions*, 67 (1995-96), pp.221-31
- Schiller, Nina Glick; Basch, Linda and Blanc-Szanton, Cristina, *Towards a Transnational Perspective on Migration*, New York: New York Academy of Sciences, 1992
- Schiller, Nina Glick and Fournon, Georges E., *George Woke Up Laughing: Long-Distance Nationalism and the Search for Home*, Durham: Duke University Press, 2001
- Schmidt-Nowara, Christopher, *Empire and Antislavery: Spain, Cuba, and Puerto Rico, 1833-1874*, Pittsburgh: University of Pittsburgh Press, 1999
- Schurer, Kevin, 'The role of the family in the process of migration', in Pooley & Whyte, *Migrants, Emigrants and Immigrants*, pp.106-42
- Scott, Joan Wallach, *Gender and the Politics of History*, New York: Columbia University Press, 1999
- Scott, Julius A., 'Crisscrossing Empires: ships, sailors, and resistance in the Lesser Antilles in the Eighteenth Century', in Robert L. Paquette and Stanley L. Engerman, (eds.), *The Lesser Antilles in the Age of European Expansion*, Gainesville: University Press of Florida, 1996
- Scott, Rebecca J, *Slave Emancipation in Cuba: the Transition to Free Labor, 1860-1899*, Princeton, NJ: Princeton University Press, 1985
- Scott, Rebecca J, 'Race, Labor, and Citizenship in Cuba: A View from the Sugar District of Cienfuegos, 1886-1909', *Hispano-American Historical Review*, 78:4, (November 1998), pp.687-728
- Seecharan, Clem, *India and the Shaping of the Indo-Guyanese Imagination, 1890s – 1920s*, Leeds: Peepal Tree Press, 1993
- Seecharan, Clem, *'Tiger in the Stars': The Anatomy of Indian Achievement in British Guiana, 1919-29*, London: Macmillan, 1997
- Seecharan, Clem, *Bechu: 'Bound Coolie' Radical in British Guiana, 1894 – 1901*, Barbados, Jamaica and Trinidad & Tobago: University of the West Indies Press, 1999
- Semmel, Bernard, 'The Issue of "Race" in the British Reaction to the Morant Bay Uprising of 1865', *Caribbean Studies*, 2:3 (October 1962), pp.3-15

- Sennett, Richard and Cobb, Jonathan, *The Hidden Injuries of Class*, Cambridge: Cambridge University Press, 1972
- Shepherd, Verene; Brereton, Bridget and Bailey, Barbara, *Engendering History: Caribbean Women in Historical Perspective*, London & Kingston: James Currey & Ian Randle, 1995
- Shepherd, Verene A. and Richards, Glen L., *Questioning Creole: Creolisation Discourses in Caribbean Culture*, Kingston & Oxford: Ian Randle & James Currey, 2002
- Shepperson, George, 'Scotland: The World Perspective', in *The Diaspora of the British*, collected seminar papers no.31, London: Institute of Commonwealth Studies, 1982
- Smyth, William J., 'Irish Emigration, 1700-1920', in Emmer & Mörner, *European Expansion*, pp.49-78
- Spellman, W. M., *The Global Community: Migration and the Making of the Modern world*, Stroud: Sutton Publishing, 2002
- Stasiulis, Daiva K., 'Feminist Intersectional Theorizing', in Peter S. Li (ed.), *Race and Ethnic Relations in Canada*, Toronto: Oxford University Press, 1999
- Stasiulis, Daiva and Yuval-Davis, Nira (eds.), *Unsettling Settler Societies: Articulations of Gender, Race, Ethnicity and Class*, London: Sage, 1995
- Stasiulis, Daiva and Yuval-Davis, Nira, 'Introduction: Beyond Dichotomies – Gender, Race, Ethnicity and Class in Settler Societies', in Stasiulis & Yuval-Davis (1995)
- Stivers, Richard, *Hair of the Dog: Irish Drinking and its American Stereotype*, revised edition, New York & London: Continuum, 2000
- Stubbs, Jean, 'Women on the Agenda: The Cooperative Movement in Rural Cuba', in Carmen Diana Deere and Magdalena León (eds.), *Rural Women and State Policy*, Boulder: Westview Press, 1987, pp.142-61
- Stubbs, Jean, 'Gender Issues in Contemporary Cuban Tobacco Farming', *World Development*, 15 (1987), pp.41-65
- Stubbs, Jean, 'Gender Constructs of Labour in Pre-revolutionary Cuban Tobacco', *Social and Economic Studies*, 33:1-2 (1988), pp.241-69
- Stubbs, Jean, *Tabaco en la periferia: el complejo agro-industrial cubano y su movimiento obrero, 1860-1959*, Havana: Editorial de Ciencias Sociales, 1989
- Stubbs, Jean, 'Social and Political Motherhood of Cuba: Mariana Grajales Cuello', in Shepherd *et al.* (1995), pp.296-317
- Stubbs, Jean, 'Race, Gender and National Identity in Nineteenth Century Cuba: Mariana Grajales and the Revolutionary Free Browns of Cuba', in Naro, *Blacks, Coloureds and National Identity*, pp.95-122
- Tenenbaum, Barbara, 'Merchants, Money and Mischief: The British in Mexico, 1821 to 1862', *The Americas*, 35 (1979), pp.317-39
- Tenenbaum, Barbara A. and McElveen, James N., 'From Speculative to Substantive Boom: The British in Mexico, 1821-1911', in Marshall, *English-speaking Communities*, pp.51-80
- Thomas, Brinley, *Migration and economic growth: a study of Great Britain and the Atlantic economy*, 2nd edition, Cambridge: Cambridge University Press, 1973

- Thomas, Hugh, *The Slave Trade: The History of the Atlantic Slave Trade, 1440-1870*, London: Picador, 1997
- Thompson, E. P., *The Making of the English Working Class*, London: Pelican, 1963
- Thompson, E. P., *The Poverty of Theory and Other Essays*, London: Merlin Press, 1978
- Thompson, F. M. L., *The Rise of Respectable Society: A Social History of Victorian Britain, 1830-1900*, London: Fontana, 1988
- Thompson, Vincent Bakpetu, *The Making of the African Diaspora in the Americas, 1441-1900*, Harlow: Longman, 1977
- Tomich, Dale W., *Slavery in the Circuit of Sugar: Martinique and the World Economy, 1830-1848*, Baltimore & London: The Johns Hopkins University Press, 1990
- Tornero, P., 'Inequality and Racism: Demography and Society in Cuba in the Late Nineteenth Century', *Revista de Indias*, 57:212 (January - April 1998), pp.25-46
- Torres-Cuevas, E. and Reyes, E., *Esclavitud y sociedad: notas y documentos para la historia de la esclavitud negra en Cuba*, Havana: Editorial de Ciencias Sociales, 1986
- Triandafyllidou, Anna, 'National Identity and the "Other"', *Ethnic and Racial Studies*, 21:4 (July 1998), pp.593-612
- Turner, Mary (ed.), *From Chattel Slaves to Wage Slaves: the Dynamics of Labour Bargaining in the Americas*, London, Kingston & Bloomington, Indiana: James Currey, Ian Randle & Indiana University Press, 1995
- Valdés Bernal, Sergio, 'La inmigración en Cuba: estudio lingüístico-histórico', *Anales del Caribe*, (1987-88), pp.220-39
- Vasta, Ellie, 'Gender, Class and Ethnic Relations: The Domestic and Work Experiences of Italian Migrant Women in Australia', in Bottomley *et al.*, *Intersexions*
- Wade, Peter, *Race and Ethnicity in Latin America*, London & Chicago: Pluto Press, 1997
- Wallerstein, Immanuel, *The Modern World System*, 3 vols, New York & London: Academic Press, 1974-89
- Wallerstein, Immanuel, *The Capitalist World Economy*, Cambridge: Cambridge University Press, 1979
- Wallerstein, Immanuel, *The Second Era of Great Expansion of the Capitalist World Economy, 1730-1840s*, San Diego: Academic Press, 1989
- Weeks, Katherine Wisley Claflin and Weeks, Robert Freeman, *A New England Family Revisited*, privately published, 1995
- Wertheimer, J., *Unwelcome Strangers: East European Jews in Imperial Germany*, New York: Oxford University Press, 1987
- Wilkes, Chris, 'Bourdieu's Class', in Harker *et al.*, *Practice of Theory*, pp.109-31
- Williams, Eric, *Capitalism and Slavery*, London: Andre Deutsch, 1964 [1940]
- Williams, Eric, *From Columbus to Castro: The History of the Caribbean, 1492-1969*, London: Andre Deutsch, 1970
- Williams, Glyn, *The Welsh in Patagonia: The State and the Ethnic Community*, Cardiff: University Press of Wales, 1991
- Wohl, Anthony S., *Endangered Lives: Public Health in Victorian Britain*, London: J. M. Dent, 1983

- Wolf, Eric R., *Envisioning Power: Ideologies of Dominance and Crisis*, Berkeley/Los Angeles/London: University of California Press, 1999
- Wright, Erik Olin, *Class, Crisis and the State*, London: New Left Books, 1978
- Ximeno, José Manuel de, 'Un pobre histrión (Plácido)', in *Primer Congreso Nacional de Historia*, Vol.2, Havana, 1943, pp.371-7
- Ximeno, José Manuel de, 'Apuntes para la historia constitucional de Cuba: Los complicados con Plácido', *Libertad nacional*, 4th May 1944
- Yelvington, Kevin A., *Producing Power: Ethnicity, Gender and Class in a Caribbean Workplace*, Philadelphia: Temple University Press, 1995
- Zanetti, Oscar *et al.*, *United Fruit Company. Un caso de dominio imperialista*, Havana: Editorial de Ciencias Sociales, 1977
- Zanetti, Oscar and García, Alejandro, *Caminos para el azúcar*, Havana: Editorial de Ciencias Sociales, 1987
- Zanetti, Oscar and García, Alejandro, *Sugar and Railroads: A Cuban History, 1837-1959*, translated by Franklin W. Knight & Mary Todd, Chapel Hill & London: University of North Carolina Press, 1998