

'In cane's shadow: The impact of commodity plantations on local subsistence agriculture on Cuba's mid- nineteenth century sugar frontier'

Jonathan Curry-Machado

Wageningen University &
Institute for the Study of the Americas

October 2010

Copyright © Jonathan Curry-Machado, 2010

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means without the prior permission in writing of the publisher nor be issued to the public or circulated in any form other than that in which it is published.

Requests for permission to reproduce any part of this Working Paper should be sent to:
The Editor, Commodities of Empire Project, The Ferguson Centre for African and Asian Studies, The Open University, Walton Hall, Milton Keynes MK7 6AA

**Commodities of Empire
Working Paper No.16**

ISSN: 1756-0098

**In cane's shadow:
The impact of commodity plantations on local subsistence agriculture
on Cuba's mid-nineteenth century sugar frontier¹**

Jonathan Curry-Machado
(*Wageningen University & Institute for the Study of the Americas*)

“There is nothing in nature more enchantingly wonderful to the eye than this perpetual blending of flower and fruit, of summer and harvest, of budding brilliant youth, full of hope and promise and gaiety, and mature ripe manhood, laden with the golden treasures of hopes realized, and promises fulfilled”, wrote the North American, Benjamin Moore, following his travels through the Cuban countryside in the 1840s:

How rich must be the resources of the soil, that can sustain, without exhaustion, this lavish and unceasing expenditure of its nutritious elements! How vigorous and thrifty the vegetation, that never falters nor grows old, under this incessant and prodigal demand upon its vital energies! It is so with all the varied products of those ardent climes. Crop follows crop, and harvest succeeds harvest, in uninterrupted cycles of prolific beauty and abundance. The craving wants, the grasping avarice of man alone exceeds the unbounded liberality of nature's free gifts.²

The fertility of the Cuban soil should have meant that the island be capable of feeding itself, yet during the nineteenth century such self-sufficiency appeared to be sacrificed in favour of spreading commodity cultivation – in particular sugar plantations, with this single crop coming to dominate the national economy, although other commodity crops (in particular coffee and tobacco) maintained some importance.³ The largest of the Caribbean islands, by the mid-nineteenth century it had become the world's leading producer of sugar, not only in terms of quantity but also of technological development. Cane plantations increasingly dominated the Cuban landscape, casting an ever longer shadow over the island's agricultural diversity as they spread, seemingly inexorably, eastwards down the length of the island; and by the early years of the twentieth century it seemed legitimate to claim that “without sugar there is no country”. Sugar exports became by far the most important element in the island's economy, generating great wealth for some but at the same time leading to considerable fragility; and by the beginning of the twentieth century, the impact of extensive sugar cane cultivation had radically altered the island's environment, such that in 1905 a Cuban agronomist remarked:

Passed... is that happy age in which with pride we could say that Cuba was the promised land, in which it was sufficient to cast the seed over the terrain in order to harvest shortly afterwards flavoursome, exquisite and abundant fruits. Cast the

¹ This paper is the result of initial research in a project exploring the relationship between local subsistence economies and sugar plantations in the Hispanic Caribbean, forming part of the broader NWO-funded ‘Commodities and Anticommodities’ programme, directed by the Technology and Agrarian Development Group at Wageningen University, the Netherlands in collaboration with the Commodities of Empire project.

² Benjamin Norman, *Rambles by Land and Water*, New York: Paine & Burgess, 1845, p.52.

³ For the purposes of this paper, I take ‘commodity crops’ to mean not simply those that are cultivated for sale, but rather those whose cultivation is distanced from their final consumption through the mediation of a trading network. I distinguish these from those crops that are cultivated for local consumption – whether for peasant subsistence, or local forms of exchange. Consumption of such ‘subsistence crops’, even though they may be sold in local markets, maintains its proximity to cultivation.

seed on the majority of the cultivated land in the provinces of Pinar del Río, Havana and Matanzas and in vain will you wait for them to produce abundant fruit. To all these lands we apply the well-known epitaph of tired or sterile lands.⁴

However, even in its heyday, cane was just one (albeit very large scale and lucrative) agricultural product in a country where a large proportion of the rural population lived and worked on peasant smallholdings (crop-cultivating *sitios de labor* and *estancias*, cattle-rearing *potreros*, or tobacco *vegas* combining commodity and food crops). Whether these were directly or indirectly tied to larger estates, or seeking to scratch out an independent living from the land that the plantations were unable to exploit (or had not yet reached) – along with the cultivation of food crops on the *conucos* of slaves and emancipated plantation workers and intercropping on estates ostensibly devoted to other commodity crops – they resulted in a hidden rural diversity belying the absolute dominance of cane. In some cases these pursued basic subsistence agriculture. In others they fed local markets (in which the sugar plantations were themselves of necessity participants), or even produced a wider range of exportable crops. Nevertheless, and despite the growth in the number of such smallholdings alongside the spread of the cane plantations, as the nineteenth century progressed Cuba found itself unable to meet its basic food requirements.

That this was so at a national level has long been known.⁵ What is less understood is what actually occurred to the local subsistence economy in those districts where sugar-cane plantations spread. This paper makes a start at addressing this question. Drawing on mid-nineteenth century census data – in preparation for subsequent detailed local research – a comparison is made between two local cases of the nineteenth-century sugar frontier: San Juan de los Remedios, in the centre of the island; and Guantánamo, in the extreme east. Both districts saw cane cultivation rapidly rise from insignificance, such that by 1862, 4.4 and 4.6 percent respectively of the island's total sugar production came from their mills. At the same time, neither district became entirely dominated by this one crop during the period (though they would be subsequently), thereby enabling the detailed relationship between the growth in sugar production and the local availability of basic food crops to be observed.

The paper begins by describing the varied form that Cuban agriculture took prior to the development of 'modern' sugar plantations, with its diverse combination of subsistence and commodity crops, before describing the spread of sugar plantations during the nineteenth century, and the increasing importance of this single crop for the island's economy, as well as its apparent dominance of some localities. The paper goes on to analyse the impact that the spread of a plantation economy had upon rural areas, both in terms of the apparent spread of smallholdings and the inability of the island to satisfy its basic food requirements. The paper ends with a discussion of the dynamic relationship between commodity and subsistence agriculture in Cuba.

Before the plantation

The town of San Juan de los Remedios, in the north of Las Villas province, is one of the oldest in Cuba, considered to be the eighth to be founded by the Spanish in the sixteenth

⁴ Francisco Cruz, *Primer informe anual de 1904-1905*, Santiago de las Vegas: Estación Central Agronómica, 1905, p.27, cited in Leida Fernández Prieto, *Cuba Agrícola: Mito y Tradición, 1878-1920*, Madrid: CSIC, 2005, p.45.

⁵ Julio Le Riverend, *Historia económica de Cuba*, Havana: Instituto Cubano del Libro, 1974, p.169.

century. Until the nineteenth century, the district surrounding Remedios remained sparsely populated, and the land was largely unexploited, with much of it remaining covered in extensive forests.⁶ By the late-eighteenth and early-nineteenth centuries, though, the area's proximity to Santa Clara, along with the possibility of coastal trade connecting Remedios with the island's western ports (Cárdenas, Matanzas and Havana), encouraged the cultivation of a number of commodity crops. In 1827, of the 1,448 recorded farms in the Remedios area, 17 were primarily sugar-producing (barely unchanged from 1775, when there were 15), 75 coffee and 107 tobacco. As can be seen from Table 1, these estates were not particularly productive, when compared with the national averages. However, Remedios was until the early nineteenth century the most important cacao-producing district in the country, with its 41 cacao estates cultivating 85 percent of Cuba's recorded production in this crop.

Table 1: Commodity production in Remedios (1827)

Source: Justo Zaragoza, 'Cuadro estadístico de la siempre fiel Isla de Cuba, correspondiente al año de 1827...', Havana: Oficina de las viudas de Arazoza y Soler, impresoras del Gobierno y Capitanía general por S. M., 1829

	Number of Farms	Production (arrobas)	Average production per farm (arrobas)	National average per farm (arrobas)
Sugar	17	24,245	1,426	8,172
Coffee	75	34,700	463	1,395
Cacao	41	20,150	491	397
Tobacco	107	6,792	63	89

Alongside these estates numerous other farms were thriving, either rearing livestock or cultivating a wide range of food crops. Although occupying only 4 percent of the total land available in 1827, the district's agriculture was producing food roughly at the national per capita average. Although the commodity crops would have helped bring some measure of prosperity to Remedios, by the 1840s, immediately prior to the growth of the district's sugar industry, the previous diversity in these had already greatly declined. While the number of sugar estates was back to the level it had been in 1775, the number of tobacco *vegas* had fallen to 86, coffee production was a sixth of its 1827 level, and cacao cultivation had almost entirely collapsed. Most of the farms previously producing these had turned to food crops.

Guantánamo was rather different to Remedios prior to the arrival of mass sugar production. Situated in the extreme east of the island, it was largely ignored by Spanish settlers, who left largely undisturbed the small aboriginal communities located there. From the late-eighteenth, into the early-nineteenth century, however, a combination of French planters displaced by the revolution in neighbouring Saint Domingue, and the search by the oligarchy of Santiago de Cuba for fresh lands, began to populate the region – displacing the original subsistence-farming inhabitants towards the extensive mountain ranges, which also came to provide a haven for escaped slaves.⁷ Unlike Remedios, that could claim administrative autonomy from an early date, Guantánamo did not receive such recognition until the mid-nineteenth century, and as a result the censuses do not begin to provide separate information until 1841, in which year only 3,776 were recorded as living there, of which half were slaves – a similar proportion to that seen throughout the region of Santiago de Cuba, of

⁶ On Remedios, see Hernán Venegas, 'Consideraciones en torno a la economía remediana colonial', *Islas*, 67 (1980), pp.11-79.

⁷ On the development of Guantánamo, see Virgen Maure, *El proceso de formación de la región histórica de Guantánamo durante la colonia: estancamiento y cambio*, PhD thesis, University of Havana, 2008.

which Guantánamo at this stage still formed part, compared to the 17 percent in the remainder of Oriente province. At this point, immediately prior to the rapid advance of sugar-cane cultivation in Guantánamo, there was just a single sugar estate, compared with 26 coffee estates on which about a third of the total population lived. The remaining two hundred farms were likely to have been primarily subsistence-based smallholdings.

Land occupation following Spanish colonisation of the island in the sixteenth century was for a long time based upon the division of the land into circular *haciendas*, mainly devoted to livestock ranching (larger *hatos*, measuring two leagues, and smaller *corrales*, of one league), with considerable restrictions placed upon the clearing of forests. Some smaller, food-producing farms were allowed in the vicinity of towns, and in the *realengos* – where land remained crown-owned – that existed between the often overlapping circles. Gradually, though, these larger estates became subdivided into a range of different kinds of smaller farms – in particular as inroads were made into the crown-protected forests: *vegas*, cultivating the tobacco that was the island's principal commodity crop in the eighteenth century; livestock-rearing *potreros*; and *sitos de labor*, along with smaller *estancias*, on which food crops were cultivated. There were also the *ingenios*, larger plots devoted primarily to sugar-cane cultivation and grinding.⁸ Although each of these farm types had a nominal specialisation, nevertheless they are all likely to have combined in different ways a diversity of land use, with subsistence agriculture happily combining with production for national and (increasingly) export markets.

Spread of sugar

Although sugar cane has been cultivated in Cuba since the sixteenth century, the spread of cane plantations was slow, with most planters favouring tobacco and coffee into the eighteenth century. In 1760, the island was exporting just 5,500 tonnes; and while the occupation by the British of the Havana region in 1762-63 stimulated plantation development and trade, growth in the sugar industry continued to be very gradual, reaching just 16,700 tonnes by 1791.⁹ Nevertheless, the foundations of the Cuban sugar industry had already been well established, albeit on a small scale,¹⁰ and the island was perfectly placed to benefit from the collapse in sugar production in Saint Domingue following the revolution there. 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 into virgin lands and to move existing cultivation away from other crops. By the mid-nineteenth century, Cuba had emerged as the world's leading sugar producer, and the sugar frontier moved steadily down the island. What had once been primarily concentrated in the Havana region, by the 1840s had shifted its centre to Matanzas and Cárdenas, and the movement eastwards continued throughout the century. Meanwhile, new landowners tamed the region around Sagua la Grande and Remedios with cane; while 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. In the east of the island, the already existing sugar-cane plantations around Santiago de Cuba expanded into neighbouring Guantánamo. The increase was not only seen in the numbers of

⁸ Le Riverend (1974); Reinald Funes Monzote, *From Rainforest to Cane Field in Cuba: an environmental history since 1492*, Chapel Hill: University of North Carolina Press, 2008.

⁹ Manuel Moreno Fraginals, *El Ingenio*, Vol. 1, Havana: Editorial de Ciencias Sociales, 1978.

¹⁰ Mercedes García Rodríguez, *Entre Haciendas y Plantaciones: Orígenes de la manufactura azucarera en La Habana*, Havana: Editorial Ciencias Sociales, 2007.

plantations, but also in the scale of production. 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. In some cases, as many as 3,000 tons might be produced in a single harvest.¹¹

At the same time, the way in which cane was cultivated, and sugar produced, changed. Sugar cultivation began in Cuba not as an export crop, but as a part of the local diet – with small mills producing cane juice and unrefined sugar for local consumption. It was only gradually that a sugar plantation system emerged – producing for a predominately export-commodity market – and even then, these were concentrated in certain key areas. Well into the nineteenth century, sugar cane continued to be grown and crushed in small quantities on smaller farms. These *ingenios* resembled more *haciendas*, in which cane cultivation was combined with a variety of food crops and livestock.¹² But as sugar production began to spread from the late-eighteenth century, and as planters moved into previously unexploited lands, cane cultivation increasingly occurred on ever larger plantations, with a higher percentage of land devoted to cane, a greater need for large bodies of slave labour, and the construction of ever more technologically advanced sugar mills. Alongside this could be seen the development of transport systems (most importantly railways) whose primary function was to speed the movement of the sugar to the coastal ports,¹³ and the linking of Cuba firmly into international commodity-trade networks.

Table 2: Commodity production in Guantánamo (1846)

Source: Leopoldo O'Donnell, *Cuadro estadístico de la siempre fiel Isla de Cuba... 1846*, Havana: Imprenta del Gobierno y Capitanía General, 1847

	Number of Farms	Production (arrobas)	Average production per farm (arrobas)	National average per farm (arrobas)
Sugar	12	120,400	10,033	13,186
Coffee	42	37,303	888	880
Cotton	13	4,014	309	94
Tobacco	524	40,120	77	88

In 1843, Guantánamo was established as an administrative region in its own right, and its population continued to grow, doubling between 1841 and 1846, and again by the early 1860s – although with barely 20,000 throughout the region by then, it was still amongst the most sparsely populated. Although coffee cultivation continued to maintain its importance, much of this growth was due to the advance of sugar-cane cultivation. In the early 1840s, twelve plantations were established, and though their average production was slightly lower than the national (see Table 2), they were clearly considerably larger than most others in eastern Cuba, where outside Guantánamo the average sugar-estate production was barely 2,000 arrobas a year. Although Santiago de Cuba had been a fairly important sugar-producing region from the eighteenth century, it was in Guantánamo that the modern plantation system first became established. This was clear from the start, even before Guantánamo's sugar

¹¹ Louis A. Pérez, Jr., *Cuba: Between Reform and Revolution*, New York & Oxford: Oxford University Press, 1995, p.77; José A. Benítez, *Las Antillas: Colonización, Azúcar e Imperialismo*, Havana: Casa de las Américas, 1977, p.200.

¹² García (2007).

¹³ Oscar Zanetti & Alejandro García, *Sugar and Railroads: A Cuban History, 1837-1939*, Chapel Hill: University of North Carolina Press, 1998.

production began to make much impression on the national figures – and in fact presaged some of the developments in the Cuban sugar industry that would become more generalised later in the century. Of particular importance was the quality of the sugar produced. Whereas the western sugar plantations that continued to dominate the island's sugar production were, in the 1840s, still priding themselves on the high quality of their end product, Guantánamo's sugar planters (amongst whom families such as the Brooks, with very strong links to transnational trading networks and metropolitan refining companies) favoured quantity over quality. In 1846, at a time when three-quarters of Cuba's sugar was still of a marketable quality not requiring further refining, more than 96 percent of Guantánamo's was less refined *moscabado* sugar. This tendency continued to be accentuated, such that by the 1860s only 0.3 percent of the region's sugar was refined. By this time, 23 sugar plantations were established in Guantánamo (primarily in Tiguabos to the west, and Yateras to the east), producing fifteen times as much cane in 1862 as had been sixteen years earlier, on cane fields that on average produced 3,800 *arrobas* of sugar per *caballería* – a considerably higher level of productivity than the national average of approximately 2,200.¹⁴ This would be expected, given the newness of the cane fields, whose soil still had not been exhausted, and the high amount of virgin land available to planters to expand into.

Although there had been a small amount of sugar production in Remedios since the eighteenth century, as in Guantánamo cane cultivation began to take off here in the early 1840s. Also similar to Guantánamo, though less accentuated, most of this increase was in *moscabado*: whereas 77 percent of the production of the earlier sugar estates had been of higher quality sugars, by 1846 the proportion had been reversed with 63 percent with a lower level of refinement. In 1862 – by when the number of sugar plantations had increased to 71 and total production was eight times its 1846 level – 98 percent of sugar from Remedios was *moscabado*. Initially concentrated in a spreading area primarily to the west of the town, by the 1860s a second focus for cane cultivation had opened up in the previously subsistence-farming area to the east, around Yaguajay. The cane fields of Remedios had a productivity that was close to that of Guantánamo – 3,683 *arrobas* per *caballería* in 1860 – again a reflection of the fertility of soil that had only recently been deforested and begun to be cultivated.

In both Guantánamo and Remedios can be seen a combination of older forms of cane cultivation and sugar production (exemplified by the animal-powered mill) and modern plantations employing steam power. In a list of 44 sugar mills in Remedios in 1860, only 27 could be described as modern mills (though these produced 86 percent of the region's sugar); and 13 out of 25 in Guantánamo (accounting for 83 percent of production).¹⁵ At the same time, there were signs of the sugar industry bringing with it rural development: improved connectivity with neighbouring districts (as well as in local transport), growing towns (and an increase in the number of rural settlements), and some increase in rural industry and services.

Impact on non-plantation farming

While the late-eighteenth century began to see sugar-cane cultivation spread more widely, and its production became both more concentrated and extensive, this in fact went hand in hand with a process of ongoing agricultural diversification, in which not only subsistence farming

¹⁴ Carlos Rebello, *Estados relativos a la producción azucarera de la Isla de Cuba*, Havana, 1860. An *arroba* weighed 25 pounds; a *caballería*, in Cuba, represented an area of 33.2 acres.

¹⁵ Rebello (1860).

continued to develop, but farmers were also attracted by increasing access to external formal and informal trading networks. They were encouraged to develop other commodity crops – such as coffee, cotton or indigo – and to introduce new cultivations, such as mango, which would quickly become such an integral part of the creole diet that its foreign origins would be forgotten.¹⁶ By the mid-nineteenth century Cuba had a growing importance for the transnational commercial networks upon which the global economy had by then become dependent. Although Cuban exports were increasingly dominated by sugar and its derivatives, coffee and tobacco continued to play a significant role;¹⁷ and as the nineteenth century progressed, some crops more generally associated with subsistence also became exploited as commodities, such as bananas and other fruits.¹⁸

The evidence would suggest that the expansion of plantations may have actually increased the amount of land cultivated in other ways. As the sugar frontier extended, underutilised land previously considered virtually valueless became marketable, leading to the purchase of land “by small-scale farmers with modest resources as well as by those with greater ambitions”.¹⁹ There seemed to be a clear connection between the spread of the two, with many leading figures of the creole ‘sugarocracy’ believing that the island’s future should be founded on peasant smallholders, cultivating not only export crops, but also those of basic consumption.²⁰ The development of sugar plantations helped open up unused land, and would then bring employment and some measure of wealth into the district. Although it is known that most of the profits made by producing sugar were channelled out, back to the cities or abroad, the large numbers of workers required on the estates had to be fed – and unless the shortfall were to be met entirely by importing, what could not be produced by the plantation itself had to be met by local producers. This helps to explain the increase in small farms alongside the development of the plantation economy – not in contradiction to it, but with a certain symbiosis.

Sugar plantations also brought with them more diversified cultivation in that typically slaves (and later emancipated workers) would be allowed small plots of land (*conucos*) on which to plant food crops, or raise livestock, thereby supplementing their diet and enabling them some access to local markets. While *conucos* also helped tie labour to the plantation, the harsh conditions of slavery also pushed some slaves to escape, resulting in *palenques* becoming established in more remote areas, eking out a basic subsistence from the land.²¹ Africans brought with them considerable knowledge of sub-tropical farming, and their importance as rural labourers (even if they were enslaved) is likely to have positively contributed to the development of Cuban food farming.²²

¹⁶ Le Riverend (1971), p.134.

¹⁷ Jean Stubbs, *Tabaco en la periferia*, Havana: Editorial de Ciencias Sociales, 1989; Francisco Pérez de la Riva, *El café: historia de su cultivo y explotación en Cuba*, Havana: Jesús Montero, 1944.

¹⁸ Alejandro García Álvarez, *La costa cubana del guineo. Una historia bananera*, Havana: Editorial Ciencias Sociales, 2008; Fernández (2005).

¹⁹ Laird Bergad, *Cuban Rural Society in the Nineteenth Century: The Social and Economic History of Monoculture in Matanzas*, Princeton: Princeton University Press, 1990, p.55.

²⁰ Carlos Venegas Fornías, ‘Estancias y sitios de labor: su presencia en las publicaciones cubanas del siglo XIX’, *Colonial Latin American Historical Review*, 81:3-4 (2001), pp.27-59.

²¹ Gabino La Rosa Corzo, *Runaway Slave Settlements in Cuba: Resistance and Repression*, Chapel Hill: University of North Carolina Press, 2003.

²² On this occurring elsewhere in the Americas, see Judith A. Carney, *Black Rice: the African origins of rice cultivation in the Americas*, Cambridge: Harvard University Press, 2001.

Sugar cane has a tendency to rapidly exhaust both the soil on which it is grown, and the neighbouring wood supplies needed for the production process. As a result, it was common for plantations to become dismantled, and land to be converted to other agricultural uses – livestock rearing, and farming for subsistence or the local food market – while cane cultivation moved into new areas.²³ For example, Santiago de las Vegas, close to Havana, had been a cane-growing district in the eighteenth century, but during the nineteenth became characterised by its agricultural diversity;²⁴ and Guanabacoa, although cane-producing during the first years of the early nineteenth-century sugar boom, a century later only had a single *caballería* planted to cane. Of the 164 farms in that district, 101 were growing diversified food crops.²⁵ At least until the mid-nineteenth century, it seemed realistic that sugar might continue to develop and generate wealth in tandem with the spread of smallholdings cultivating a wider range of crops, for subsistence, local markets and export. This was certainly the view of many prominent commentators of the time;²⁶ and this project of ‘*Cuba pequeña*’ (‘little Cuba’) generated a vision of the island that would end its dependence upon slavery, and would develop on the foundations of a strong peasantry.²⁷

Even (or arguably in particular) in the midst of the plantation system, these small farms – largely rented from larger landowners – occupied a significant space, for all that they have tended to be largely ignored by the historiography. For example, even in the province of Matanzas, which by the 1840s had become characterised by sugar monoculture, a continuing diversity can be seen, with about a third of the population living and working “on crop- and stock-raising farms”, and in those districts on the edge of the sugar frontier this rose to as much as 70 percent.²⁸ Even though sugar cultivation continued to increase its macroeconomic hold over the province, in 1862 this same proportion of the population continued to inhabit “other types” of farms, primarily smallholdings, “scattered among or nearby the sugar mills”.²⁹ If the period running from the end of the eighteenth to the second half of the nineteenth century can be characterised by the spectacular rise of the Cuban sugar industry, it could equally be described in terms of the spread of peasant cultivation: with the number of farms increasing from less than 8,000 in 1778 to over 50,000 by 1862, in which year only 14.1 percent of cultivated land was under cane, compared to 67.2 percent producing food crops.³⁰ This was reflected in the numbers of farms (Figure 1), and in the fact that throughout the mid-nineteenth century, more than half of the rural population continued to live and work on smallholdings (Figure 2).

²³ Funes (2008), pp.30 & 35-6; Fernández (2005), p.65.

²⁴ Fernández (2005), p.124.

²⁵ Fernández (2005), p.60.

²⁶ See, for example, Ramón de la Sagra, *Estudios coloniales con aplicación a la isla de Cuba*, Madrid: Dionisio Hildaglo, 1845, p.84.

²⁷ Venegas (2001).

²⁸ Laird W. Bergad, *Cuban Rural Society in the Nineteenth Century: the social and economic history of monoculture in Matanzas*, Princeton: Princeton University Press, 1990, pp.32-3.

²⁹ Bergad (1990), pp.95 & 140.

³⁰ Levi Marrero, *Cuba: Economía y sociedad*, Vol.10, Madrid: Editorial Playor, 1984, p.86, with calculations taken from La Sagra.

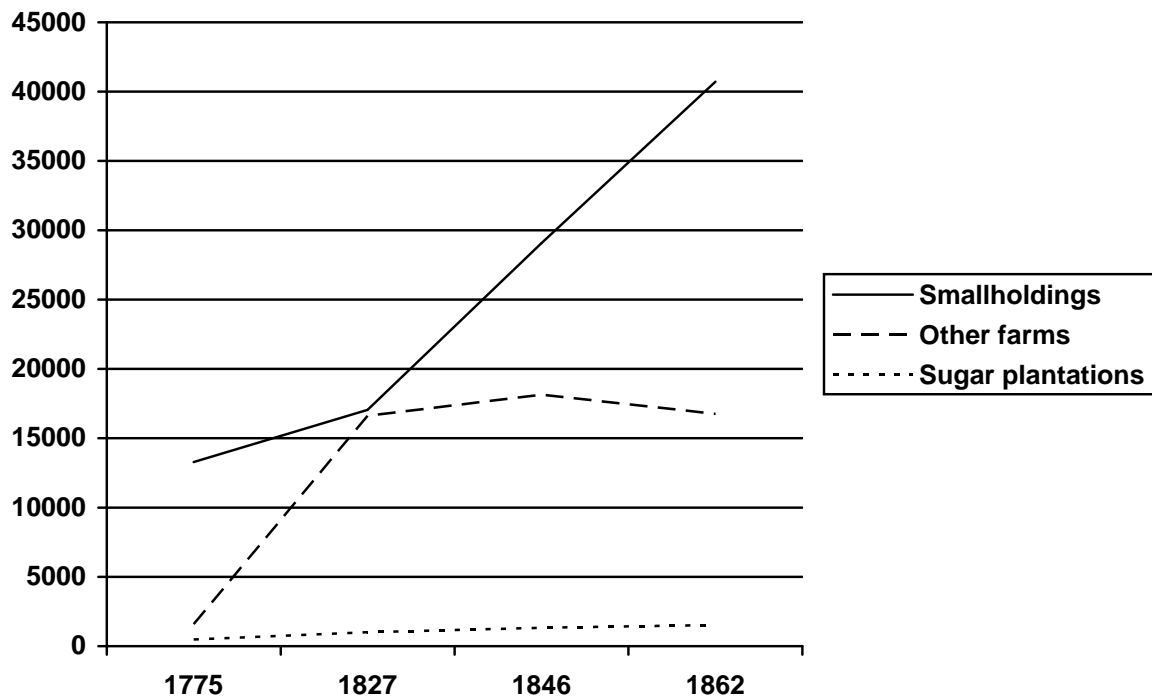


Figure 1: numbers of farms, 1775-1862

Source: Marqués de la Torre, *Noticias de la isla de Cuba con que acompañó el padrón del año de 1775*, Havana, 1789; Zaragoza (1829); O'Donnell (1847); Armildez de Toledo, *Noticias estadísticas de la isla de Cuba en 1862*, Havana: Imprenta de Gobierno y Capitanía General y Real Hacienda, 1864

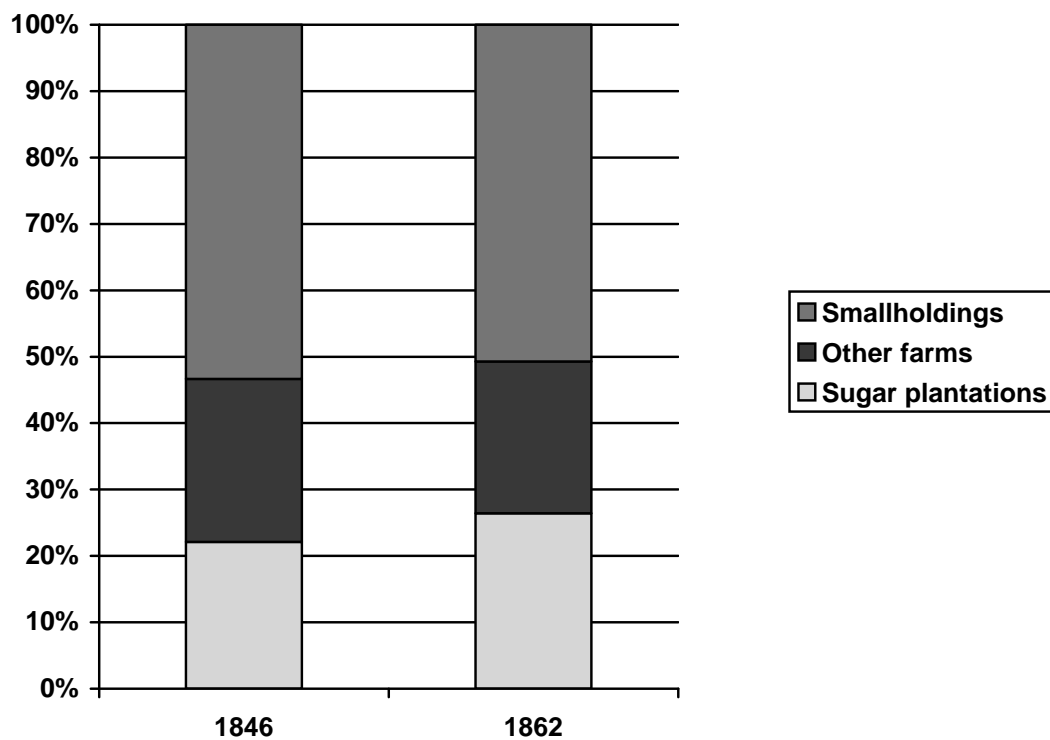


Figure 2: Rural population by type of farm

Source: O'Donnell (1847); Toledo (1864)

It is important to note that there were considerable regional differences showing from the start. While Havana province saw a concentration of sugar cultivation (and intensive agriculture in general), prior to the advance of cane cultivation into Matanzas in the first half of the nineteenth century this province remained largely unpopulated and underdeveloped. In Matanzas in this period, certainly there was a diverse peasant agriculture, but the population was “small, scattered” and “struggled to eke out a living on fragmented farms”, with the absence of a significant “urban market to sustain the province”.³¹ A similar difference can be seen between Trinidad – important in the early development of the Cuban sugar industry – and neighbouring Cienfuegos – which would later become settled and cultivated following exhaustion of Trinidad’s lands; and in the east of the island, between Santiago de Cuba and Guantánamo, as well as Bayamo and what would become Las Tunas and Holguín. By looking at the changing numbers of smallholdings according to province (Figure 3), it can be seen that the numbers of small food-cultivating farms in Havana remained remarkably constant, while there was a significant increase in both Santa Clara and (in particular) Oriente. Meanwhile, rather more modest increases could be seen in Matanzas (where the largest sugar plantations of the mid-nineteenth century were located), Pinar del Río (dominated by tobacco cultivation) and what would later become Camagüey (Puerto Príncipe) – the latter being of greater significance in cattle rearing.

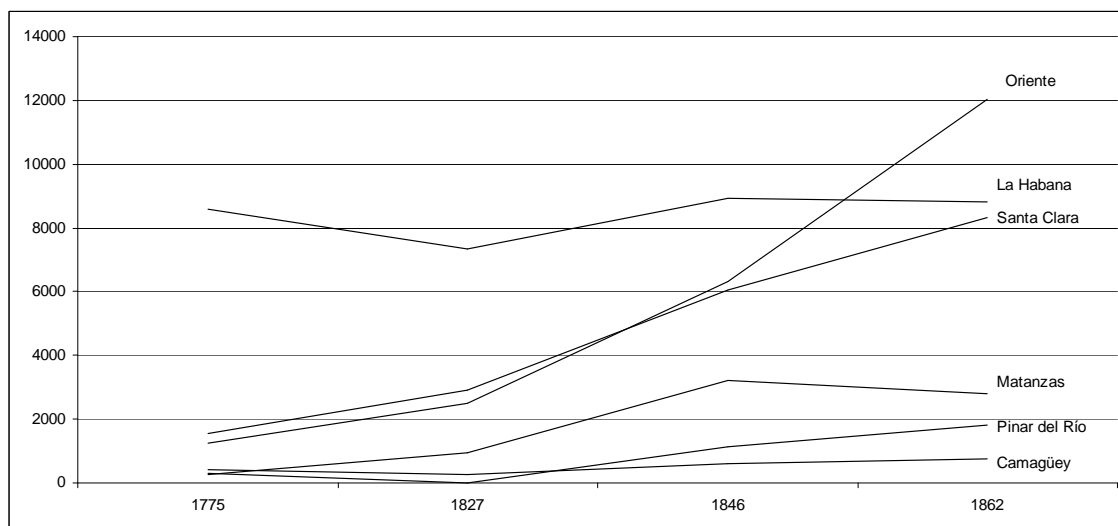


Figure 3: Sitios & estancias by region

Source: Torre (1789); Zaragoza (1829); O’Donnell (1847); Toledo (1864)

To what extent was there a direct relationship, at a local level, between the parallel increases in plantation and non-plantation farming? In the case of Remedios, there does seem to be a close link. While the number of sugar plantations increased from 37 in 1846 to 71 in 1862 (and the region’s sugar production became eight-times greater), over the same period the number of *sitios* and *estancias* increased three-fold, the number of *potreros* doubled, and the number of tobacco *vegas* (which were likely to have combined tobacco cultivation with diversified food production) rose from 86 to 453. In the Tiguayabon district, where 16 of the 34 new sugar plantations were established, the increase in non-plantation farming was particularly visible: with the number of peasant smallholdings growing from just 48 in 1846 to 306. In other districts, the spread of sugar plantations seems to have led to a local reduction in smallholdings. For example, in Yaguajay in the period that 8 sugar plantations were established (producing a third of Remedios sugar in 1860), the number of small farms

³¹ Bergad (1990), p.xvii.

dropped from 70 to 59. However, at the same time neighbouring Mayajigua saw its population triple, and the number of smallholdings increase from 86 to 131, possibly stimulated by the close proximity of increasing cane cultivation.

A similar situation can be seen in Guantánamo – although here most smallholdings were not *sitios*, *estancias* or *potreros*, but tobacco *vegas* combining this commodity crop with subsistence-food cultivation. While sugar production increased fifteen-fold between 1846 and 1862, the total number of smallholdings doubled from 644 to 1,239. As in Remedios, there seems to have been a close local link. In Tiguabos, where 71 percent of Guantánamo's sugar production was concentrated in 1860, the number of smallholdings increased from 58 to 282 – most of which, contrary to the general pattern in the region, could be identified as specifically food-cultivating (*sitios* and *estancias*).

Feeding the island

Although to a certain extent food cultivation took place on other farms (sugar plantations, coffee estates, tobacco *vegas*, cattle ranches), in order to provide at least a part of the sustenance of those living and working on them, the most important function of the *sitios* and *estancias* was the cultivation of food crops. At a basic level, smallholding peasants produced for subsistence and immediate forms of exchange with neighbours. However, because the majority of them were not owners of the land they worked, but rented it from larger landowners, they necessarily needed to produce some surplus either through payment in kind or in labour (as was often the arrangement for the cultivation of peripheral land belonging to plantations), or for sale – whether this be directly to neighbouring plantations, within the locality either through itinerant sale or through the ubiquitous bodegas that dotted the rural areas (a combination of small store and tavern, where local farmers could trade their produce, and buy supplies, as well as meet to have a drink, play cards or take part in cockfights),³² in local markets in the rural population centres that gradually developed, or to feed the burgeoning demands of the island's cities. Although the spreading sugar plantations increasingly concentrated themselves almost exclusively on cane (with a reduction in the land given over to slave *conucos*), with “food-crop acreage reduced to insignificance” by the 1840s and 50s;³³ recent research is showing that, while limited, food cultivation continued to take place on the sugar estates – not only in the form of *conucos* but also on peripheral land that would otherwise lie fallow.³⁴ For example, on the Arroyo estate in 1852, of the total of 36 *caballerías* of cultivated land, 33 were under cane, while there was “one... for the use of the negroes, one is for keeping the animals of daily use on the Estate, and the other to plant vegetables”. While this was “not enough” to make the estate self-sufficient, it certainly helped feed those living and working there.³⁵

A wide variety of crops were cultivated, ranging from grains such as rice, maize, millet and sago, root vegetables (yucca, potatoes, malanga, boniato), through various beans, to a range of green vegetables and fruits. As would be expected, given the general increase in

³² Miguel Barnet, *Biografía de un cimarrón*, Havana: Editorial Letras Cubanas, 2001 [1966], pp.25-6.

³³ Bergad (1990), p.235.

³⁴ David Sartorius, ‘Conucos y subsistencia: el caso del ingenio Santa Rosalia’, in Fernando Martínez Heredia, Rebecca Scott & Orland García Martínez (eds), *Espacios, silencios y los sentidos de la libertad. Cuba entre 1878 y 1912*, Havana: Ediciones Unión, 2001, p.113.

³⁵ Letter from Storey, Spalding & Co. in liquidation to Baring Brothers & Co., Havana, 5 August 1852 (Barings Archive, correspondence of Storey, Spalding & Co., 1850-52, and Adot, Spalding & Co., 1852-67, HC 4.6.10, #91).

food-cultivating farms in Cuba during the nineteenth century, overall production of food crops increased. Although the early 1840s saw a drop in quantity, this was possibly a short-term effect due to the series of heavy hurricanes that particularly affected the most developed parts of the Cuban countryside in those years.³⁶ By 1862, the total amount of food produced in the island was almost twice what it had been in 1827 (Figure 4). It is interesting to note that the bulk of the increase was in the Matanzas and Santa Clara regions, where most of the advances in sugar plantations occurred in the mid-nineteenth century (Figure 5).

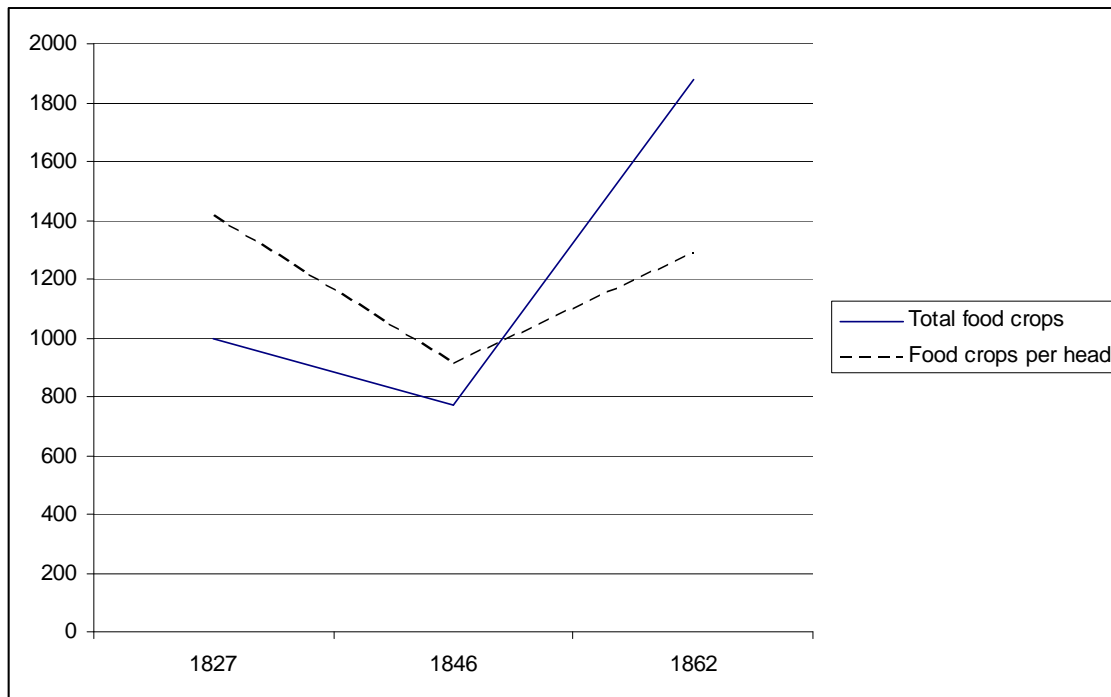


Figure 4: Food cultivation in Cuba (1827-1862)

Note: total food crops as millions of pounds per year; food crops per head in pounds per annum
 Source: Zaragoza (1829); O'Donnell (1847); Toledo (1864)

³⁶ Louis A. Pérez, Jr., *Winds of Change: Hurricanes and the Transformation of Nineteenth-Century Cuba*, Chapel Hill: University of North Carolina Press, 2001.

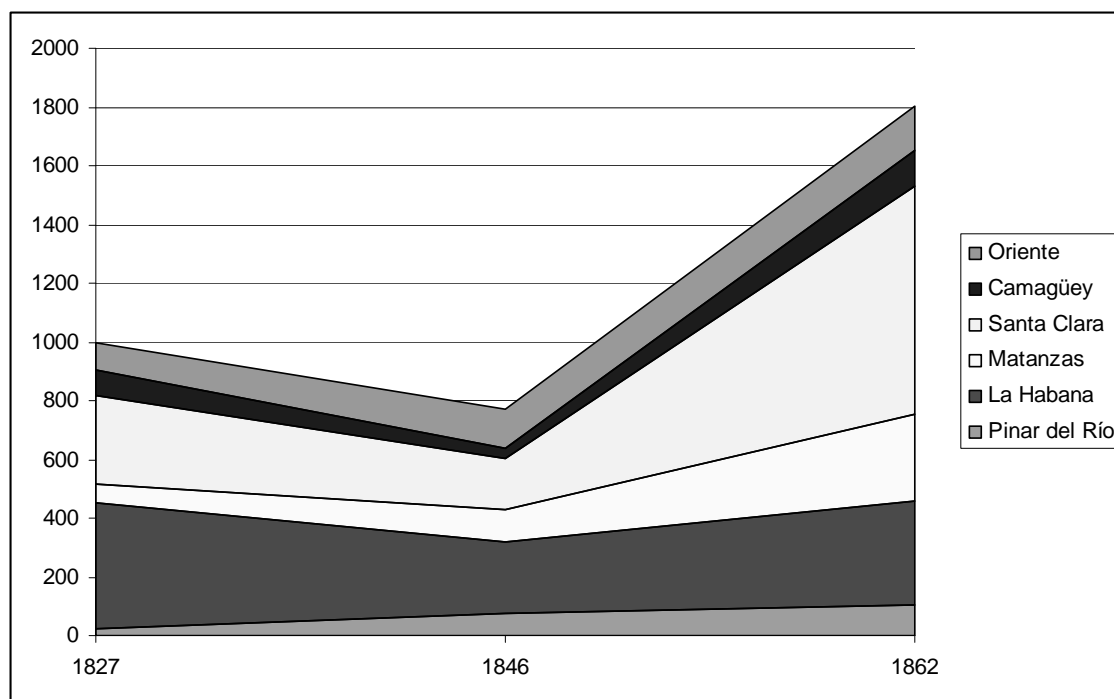


Figure 5: Distribution of food production by province (1827-1862)

Note: measured in millions of pounds

Source: Zaragoza (1829); O'Donnell (1847); Toledo (1864)

It has generally been assumed (as it has throughout the Americas) that rice was introduced to Cuba by the Spanish – for whom it already formed a part of the diet, having reached the Mediterranean from Asia. However, recent scholarship is questioning this – since many of the African slaves brought across the Atlantic came from parts of West Africa where rice was a staple. They were much more likely to have brought with them the expertise necessary for establishing effective rice production, in Cuban conditions, than were the Spanish colonists – though such a possible role has generally been ignored, due to the overwhelming tendency for black slaves to be reduced in the minds of commentators to the role of brutalised labour and victims.³⁷ Although the rice that is habitually grown and eaten in Cuba is a long-grain variety, originating in Asia, there is some evidence that African rice varieties were also present in the island, at least into the nineteenth century.³⁸ During this period, overall rice production was steadily increasing, as the grain became more firmly established as the principle source of carbohydrate in the Cuban diet. While in 1827, 18.5 pounds of rice were produced per head of population nationally, this had increased to 30 pounds per head by 1860. However, rice continued to be imported to supplement this, in approximately equal quantities to the amount the island produced.³⁹ Rice cultivation was overwhelmingly concentrated in the western and central regions of the island, with a minimal presence in the east. While at the beginning of the nineteenth century, about half of all the island's rice was grown in Havana province, there was a marked increase in Pinar del Río, Matanzas and Santa Clara: with the latter becoming the most productive rice region by 1862. By then, of particular importance was Cienfuegos, which alone produced one-fifth of the

³⁷ See Carney (2001); Esteban Cabezas Bolaños & Ana M. Espinoza Esquivel, 'El arroz en América: su introducción y primeras siembras', *Revista de Historia de América*, 126 (Jan.-June 2000), pp.7-18.

³⁸ The Natural History Museum in London holds a sample of *Oryza glaberrima* (African cultivated rice), sent to them from Cuba in the 1870s (my thanks to Paul Richards for this information).

³⁹ Ismael Sarmiento Ramírez, *Cuba: entre la opulencia y la pobreza*, Madrid: Aldaba, 2004, p.160.

island's rice. There seems to have been a further shift in the late-nineteenth century, with the impressive growth of Pinar del Río's cultivation of this grain seen in the mid-nineteenth century continuing (increasing more than twelve-fold between 1827 and 1862), to make the province the most important rice producer by the end of the century. By then, rice cultivation had become considerably reduced in the one-time leader, Havana; while Oriente and Camagüey, where rice cultivation had been so insignificant, could claim approximately a third of all the island's land under this grain.

Unlike rice, maize was indigenous to Cuba, and having been encountered by the Spanish in the Americas became an example a food crop that travelled back across the Atlantic, to enter Old World diets. It has also continued to be an important staple in Cuba. As with rice, there was an overall growth into the mid-nineteenth century of maize cultivation, with the production per head growing from 230 pounds per annum in 1827, to almost 300 by 1862 – although there was a big reduction in the 1840s, possibly as a result of hurricanes. From the 73 thousand tonnes produced in 1827, 197 thousand tonnes were cultivated in 1862. Much of this increase was due to a spectacular increase in maize cultivation in Cienfuegos, which in 1862 was producing more than half the island's crop; though there could also be seen a significant, though more modest, increase in the Matanzas region. Again as with rice, by the end of the century cultivation had moved eastwards, with Camagüey and Oriente (where little maize seems to have been grown before) sharing almost half of all the island's land planted with this grain.

Two other grains appear in the figures for food cultivation in nineteenth century, though of considerably less importance. Millet cultivation was already known in West Africa, and its cultivation may have been introduced into Cuba in a similar way to rice – though never becoming a commercial crop in the same way. Given the dominance of other readily available carbohydrate sources in the Cuban diet, it may have been employed more for cattle fodder, or as a local staple. It remained overwhelmingly concentrated in the Havana region – where 85 percent of the island's production of this crop was grown. More than half of the total – which doubled during the mid-nineteenth century – came from the district of San Antonio de los Baños. Sago is strictly speaking not a grain, but rather a starch obtained from the pith of palm stems, from which a flour may be produced. Sago production was never large in Cuba, and during the nineteenth century appears to have gradually fallen out of use. From 119 tonnes in 1846, it had fallen to just 22 by 1862. As with millet, most sago was produced in the Havana region. However, while in western Cuba its use became rapidly reduced, at the same time in the east its cultivation increased ten-fold.

Yucca was a staple of the indigenous Cuban diet prior to the arrival of the Spanish, and to this day continues to be important, and symbolic of Cuban national identity. While it can be cooked as a root, it was typically processed into a flour – *casabe* (cassava). In the nineteenth century there was a fairly rapid decline in its production in the west and centre of the island (where yucca continued to be consumed as a root vegetable, with rice and corn becoming more significant as staples); while consumption of *casabe* continued in the east, where it continues to be a typical food of the region. In addition to yucca, Cuba enjoys a range of other root vegetables, which formed a central part of the island's diet in the nineteenth century (potatoes, malanga, boniatos); and also bananas/plantains (of which the island has a wide variety). Approximately one-thousand pounds per head of such *viandas* were produced in the island per year during this period, of which about 40 percent were bananas. There were, of course, a range of other food crops: beans (though never in sufficient quantities to meet the considerable demand of this basic part of the Cuban diet), vegetables and fruit (though there

are some signs that during the mid-nineteenth century these were generally cultivated more for subsistence consumption, rather than for trade).

In fact, for all that sugar seemed to be sweeping all before it, during the nineteenth century agricultural diversification in Cuba may have actually increased.⁴⁰ Not only could smallholdings yield a range of subsistence crops “for family consumption or for sale”, as well as providing the option of cultivating cane or other export crops,⁴¹ with peasants alternating commercial and subsistence crops “in correspondence to their monetary and self-sufficiency needs”,⁴² on the plantations themselves, crops such as bananas or plantains and maize were used in association with cane and tobacco, and to a certain extent within a programme of crop rotation.⁴³ Not all land was suitable for cane, thereby offering the possibility of developing other crops, such as henequen on rocky coastal soils.⁴⁴ Even the development of the new large centrals in Oriente later in the century was often combined with the extensive cultivation of bananas and coconut for export, with Cuba coming to supplant Jamaica and other banana producers in the region within the US market;⁴⁵ and elsewhere other agricultural products were grown to take advantage of the new possibilities for tropical fruits in the US market.⁴⁶ Güines became in this way effectively an allotment for the United States – continuing the region’s history of ongoing sugar production with more diversified cultivation, becoming the island’s main commercial producer of tomatoes, onions and potatoes.⁴⁷

Though of course this was simply another form of commodity production, sometimes sugar colonies were developed to be self-sufficient, such as the Guabairo Colonia, where “a sufficient quantity of corn and vegetables were grown for all the requirements of the colonia, so we never had to purchase.”⁴⁸ There may also have been a classificatory problem, accentuating the impression of cane’s dominance, whereby many lands classified as devoted to sugar were in fact “subdivided into smallholdings or dedicated to alternative agricultural activities”.⁴⁹ This would become particularly important by the early twentieth century, in the large sugar *latifundia* that had by then developed. On the Tuinucú central near Sancti Spíritus, small scale cultivation by workers and cane farmers of food crops was actively encouraged, offering prizes to whoever “could cultivate the most fruits and vegetables”: “those who grew more than their families could consume sold the surplus for extra income”.⁵⁰ Some sugar centrals, such as Chaparra and Delicias in what is now Las Tunas province, were so large and dominating of the region that the local port (Puerto Padre) was effectively a dependency of them. Although obviously these were dedicated to the production and export of sugar, they

⁴⁰ Fernández (2005), p.59.

⁴¹ Rebecca L. Scott, *Slave emancipation in Cuba: the transition to free labor, 1860-1899*, Princeton: Princeton University Press, 1985, p.246.

⁴² Fernández (2005), p.303.

⁴³ Fernández (2005), p.295.

⁴⁴ Letter from Joaquín Alfonso y Madan, to Capitan General Gobernador de Cuba, 24th April 1889 (Archivo Histórico Nacional, Madrid (AHN), Ultramar, Fomento de Cuba (UFC), 173/18).

⁴⁵ Funes (2008), p.196; Alejandro García Alvarez, ‘Las economías locales en el oriente de Cuba: cultivo y exportación bananera (1878-1895)’, in Antonio Santamaría & Consuelo Naranjo, *Más allá del azúcar: política, diversificación y prácticas económicas en Cuba, 1878-1930*, Madrid: Doce Calles, 2009, p.222; Fernández, *Cuba Agrícola*, p.280.

⁴⁶ Fernández (2005), pp.125-6.

⁴⁷ Fernández (2005), p.269.

⁴⁸ Statement of P. M. Beal, manager of the Guabairo Colonia, US War Dept., *Informe sobre el censo de Cuba, 1899*, Washington DC: Government Printing Office, 1900, pp.529-30.

⁴⁹ Fé Iglesias, *Economía del fin de siglo*, Santiago de Cuba: Editorial Oriente, 2005, p.62.

⁵⁰ Gillian McGillivray, *Blazing Cane: sugar communities, class, and state formation in Cuba, 1868-1959*, Durham & London: Duke University Press, 2009, p.132.

controlled far more land than was ever cultivated with cane. Though they would have imported a lot of their food requirements, they also would have probably produced a lot of this locally.⁵¹ This is hinted at by the fact that while in 1919, 8 percent of the island's total area was occupied by cane fields, the sugar *latifundia* in fact occupied three times this area.⁵² However, just as much subsistence cultivation by smallholding peasants would never reach official figures (and therefore tend to be under considered), so too would such cultivations not necessarily appear in any documents external to the plantation, thereby adding to the erroneous impression of cane cultivation to the exclusion of other crops.

Nevertheless, it seems clear that as the nineteenth century progressed, Cuba found itself increasingly unable to meet its food needs. The problem of smallholders switching from subsistence crops to cane (or surrendering their lands to this end) was already evident in the seventeenth century.⁵³ This tendency to abandon other forms of cultivation in order to grow cane intensified following the sugar boom of 1792;⁵⁴ and by the early nineteenth century it was clear that the island was not self-sufficient in many staples – such as beans, which, although grown locally, not in sufficient quantities to satisfy the growing population, resulting in the need for imports.⁵⁵ Alexander von Humboldt, when he visited the island during his tour of the Americas, remarked upon this lack of subsistence crops.⁵⁶ Early attempts at some form of crop rotation – such as harvesting rice one year prior to planting cane, or interspersing cane with corn – came to be opposed by leading planters, who claimed that:

it prejudices the increase and duration of the cane, since this first fruit and the grass that occupied the land in the period between the harvest of one crop and the sowing of the other wastes part of the earth's fertility.⁵⁷

Although prior to the nineteenth century official bodies were concerned that the shift to cane would affect food supplies and sought to control this, by the mid-nineteenth century official bodies such as the *Junta de Fomento* displayed a clear prejudice in favour of cane cultivation. Despite also pursuing policies intended to favour white colonisation by promoting agricultural settlement, these took second place to the overriding concern of further stimulating the sugar industry. For example, prizes were given for agricultural improvements, not only for those related to sugar but also other crops. However, of the 120,000 pesos allotted in this way in 1844, 56,000 were specifically sugar-related, and only 3,000 pesos could conceivably have been won by those cultivating other crops. Admittedly 36,000 was earmarked for the colonisation of unused land (which was likely to benefit smallholder agriculture), but the prize itself would go to the landowners not those farming.⁵⁸

Even though the number of food-cultivating farms continued to grow (as did the number living and working on them), they were not able to meet the requirements of the island's burgeoning population. This may in large part have been due to such farming being carried out by white, European settlers, generally unfamiliar with the specificities of a climate and environment such as Cuba's. The number of Spanish migrants in the island grew from

⁵¹ McGillivray (2009), p.103.

⁵² Funes (2008), p.266.

⁵³ Funes (2008), p.31.

⁵⁴ Moreno (1978), Vol. 1, p.96.

⁵⁵ Zaragoza (1829), p.32.

⁵⁶ Alexander von Humboldt, *Ensayo político sobre la Isla de Cuba*, Paris: Leconte y Lasserre, 1840 [1826].

⁵⁷ José R. O'Farrill, 'Exposición ...a la sociedad del método observado en la isla de Cuba en el cultivo de la caña dulce y elaboración de su jugo', *Memorias de la Sociedad Económica* 1 (1793), p.122 (cited in Funes (2008), p.46).

⁵⁸ AHN, UFC, 17/8.

47,023 in 1846, to 117,114 in 1862,⁵⁹ and many of these arrived as agricultural colonists.⁶⁰ While those who could afford to obtain slaves may have been able to benefit from African farming expertise, most were poor and struggled to adapt to Cuba conditions; and it would not be until the late-nineteenth and early-twentieth centuries that a serious attempt began to be made to introduce scientific methods to the production of food crops.⁶¹ The average food-crop production per *sitio* and *estancia* in the mid-nineteenth century would seem to confirm a drop in productivity during the period: from 2,857 *arrobas* per farm in 1827, to just 1,169 in 1846, and only slowly improving (to 2,088 *arrobas* per farm) by 1862.

Although there can be seen the beginnings of large-scale food-as-commodity cultivation in some areas (for example, rice and corn in Cienfuegos and Matanzas, bananas in Oriente), food cultivation generally did not occur on a national, but on a local scale. Therefore to answer whether the reduction in food self-sufficiency was a direct result of expansion of commodity-plantation cultivation (in particular sugar), it is necessary to examine what was occurring in those localities, such as Remedios and Guantánamo, where cane cultivation was spreading.

In 1827, an impression can be garnered that Remedios was largely self-sufficient in food (with the exception of beans, which was already an important food commodity import crop for Cuba as a whole), and the vibrancy and diversity of the local food market is indicated not just by the quantity of principle staples to feed the local population, but also in the quantity of vegetables and fruit (see Table 3). The region would appear to have been growing an excess of food, particularly if taking into account that many rural producers would have been self-sufficient in their own right, without need for recourse to the local market. Remedios may very well have been providing vegetable and fruit crops for other parts of the island, where food cultivation was lower – possibly neighbouring Puerto Principe, where most land was devoted to cattle ranching.

As was the case in the country as a whole, from early on there appears to have been a shortage of rice in Remedios. Nevertheless, the region did cultivate this grain; but although this was in increasing quantities, it does not seem to have been able to keep pace with the growing population. In 1827, it is likely that in reality there was not an actual shortfall – rather, in the Remedios region there was a much greater dependency upon cassava and maize as dietary staples. But during the middle years of the century, cassava production collapsed – at least as a product for sale in the local market – while reliance upon rice increased. Nevertheless, although the amount of locally cultivated rice was almost six-times higher in 1862 compared to 1827 (while the population was just four-times higher), it is probable that the shortfall had likewise increased – with in the region of 60 percent of rice needing to be brought in from outside. Unlike the situation earlier in the century, when other carbohydrate sources were still of greater use, by the 1860s – with rice asserting itself as the principle source of carbohydrate in particular in the sugar-dominated regions of western and central Cuba – this would have seen the development of a trade in this grain, with the shortfall coming from imports. On the other hand, cassava – still an important indigenous food in

⁵⁹ Jordi Maluquer de Motes, *Nación e inmigración: los españoles en Cuba (ss.XIX y XX)*, Asturias: Ediciones Jucar, 1992.

⁶⁰ Consuelo Naranjo Orovio, 'Cara y cruz de una política colonial: azúcar y población en Cuba', in Antonio Santamaría García & Consuelo Naranjo Orovio (eds), *Más allá del azúcar: política, diversificación y prácticas económicas en Cuba, 1878-1930*, Madrid: Doce Calles, 2010, pp.21-58.

⁶¹ Fernández (2005); Leida Fernández Prieto, *Espacio de poder, ciencia y agricultura en Cuba: el Círculo de Hacendados, 1878-1917*, Madrid: CSIC/Universidad de Sevilla/Diputación de Sevilla, 2008.

Remedios in the early nineteenth century – appears to have become entirely displaced. Meanwhile maize, which greatly increased its importance throughout Cuba during the mid-nineteenth century, after a reduction in production in Remedios in 1846 (possibly due to the adverse effect upon this crop from the hurricanes of the early 1840s) increased greatly – though again possibly not sufficiently to keep pace with demand. A similar story can be seen with other key crops, such as *viandas* (root vegetables) and bananas – with increased cultivation on the numerous additional smallholdings established in the region probably failing to keep pace with demand.

Table 3: Availability of food staples in local food market, Remedios

	1827		1846		1862	
	Local availability	Estimated surplus/ (shortfall)	Local availability	Estimated surplus/ (shortfall)	Local availability	Estimated surplus/ (shortfall)
Rice	8,910 @	(13,000 @)	13,567 @	(22,000 @)	52,329 @	(79,000 @)
Cassava	510 cab	450 cab	315 cab	180 cab		
Maize	198,000 @	79,000 @	53,544 @	(23,500 @)	526,220@	(95,000 @)
Viandas	42,500 cargas	(18,000 c.)	37,711 cargas	(3,500 c.)	84,606 cargas	(60,000 c.)
Bananas			28,074 cargas	(3,000 c.)	47,667 cargas	(41,000 c.)
Beans	3,465 @	(13,000 @)	3,409 @	(17,000 @)	6,157 @	(62,000 @)
Vegetables	8,400 cargas	2,000 c.	1,359 cargas	(300 c.)	537 cargas	(3,400 c.)
Onions & garlic	4,290 @	3,800 @	1,314 @	950 @		
Fruit			919 cargas	(2,700 c.)		

Note: estimated surplus/shortfall based on calculations from national availability (according to censuses), taking into account regional difference in principle carbohydrate staple, rice import figures, and estimated individual consumption of beans (36 lbs/year). Assumptions are also made on probable rural self-sufficiency in fruit, vegetables, onions & garlic. 1827 figures for *viandas* include bananas; and for vegetables include fruits. 1862 – no separate figures for onions and garlic, and fruit.

@ = arroba (25 lbs); cab = caballo (200 lbs); carga = 200 lbs

A particularly striking feature of the local food market in Remedios is that, as the century progressed, the availability of vegetables and fruit apparently plummeted. It might be asked whether this shortfall was met by importing from other areas, or whether what can be inferred is that production of these became increasingly a subsistence activity – with not only rural populations, but also those in towns growing to meet their needs on allotments. Such domestic cultivation is unlikely to be captured by the census data, and it will require detailed local research to determine what was really occurring. Average food production per *sitio* or *estancia* in Remedios steadily fell through the period, from 1803 *arrobas* in 1827, to 1130 in 1846 and 1059 in 1862. These figures suggest both that such smallholdings tended to be either smaller (or less productive) than the national average – or might also support the notion that there was an increase in unrecorded subsistence cultivation during the mid-nineteenth century. Again, the answer to this must wait for further local research.

The situation in Guantánamo seems to have been somewhat different. Here, prior to the rapid growth in sugar cultivation in the mid-nineteenth century, the local food market was clearly rather meagre. Many of those living in the region were essentially subsistence farmers, producing to meet their needs – often on farms whose primary economic activity was the cultivation of tobacco, which they would supplement with food cultivation. In 1846 there would appear to have been a net shortage of all foods except maize – though as in Remedios, the apparent over production of this was probably consumed locally as an alternative to other

crops (in the case of Oriente, particularly important being cassava, with rice consumption in this part of the island slow to take a hold). However, given the relatively higher proportion of slaves in the population of Guantánamo – due to the establishment of large plantations, both for sugar and coffee – rice may have been in greater demand here than in other parts of the province, and cassava relatively less so. Also most cassava may never have been a market crop, but rather produced for subsistence by isolated rural communities.

Table 4: Availability of food staples in local food market, Guantánamo

	1846		1862	
	Local availability	Estimated surplus/ (shortfall)	Local availability	Estimated surplus/ (shortfall)
Rice	279 @	(2,500 @)	171 @	(8,900 @)
Cassava	97 caballos	(1,860 caballos)		
Maize	31,572 @	8,300 @	204,505 @	42,000 @
Viandas	4,290 cargas	(3,650 cargas)	7,4640 cargas	42,000 cargas
Bananas	5,716 cargas	(10,300 cargas)	69,185 cargas	22,000 cargas
Beans	2,528 @	(8,000 @)	2,964 @	(25,000 @)
Vegetables	750 cargas	(240 cargas)	376 cargas	(480 cargas)
Onions & garlic		(80 @)		
Fruit	192 cargas	(600 cargas)		

Note: estimated surplus/shortfall based on calculations from national availability (according to censuses), taking into account regional difference in principle carbohydrate staple, rice import figures, and estimated individual consumption of beans (36 lbs/year). Assumptions are also made on probable rural self-sufficiency in fruit, vegetables, onions & garlic. 1862 – no separate figures for onions and garlic, and fruit. No 1827 figures for Guantánamo.

@ = arroba (25 lbs); caballo = 200 lbs; carga = 200 lbs

Unlike Remedios, where the growth in sugar plantations – while being accompanied by a similar growth in food-cultivating farms – saw food demand outstrip local supply, in Guantánamo as sugar plantations took a hold, their demand for food staples helped stimulate the increasing cultivation of bananas, maize and *viandas* (as well as an apparent end to cassava as an energy source of note, unlike other parts of rural Oriente). Not only was local cultivation able to keep pace with the growing demand, but even seems to have outstripped it – with local production in these more than enough to make up for the local shortage in rice (which was probably being met by imports anyway, in particular for the plantations). It is likely that much of this surplus would have been traded in Santiago de Cuba. As with Remedios, the shortage in beans would have needed to be made up for by imports; while the low quantity of vegetables and fruits on offer in the local market again suggests not import (rather unlikely in this period, due to problems of transport and durability), but that most such foods continued to be produced as a domestic crop, and as a result hidden from the figures of declared production. Average food cultivation per *sitio* or *estancia* in Guantánamo grew considerably, from 1,838 *arrobas* per annum in 1846 to 9,588 in 1862 – a further indication of the rise of very large commercial food farms in the region. As with Remedios, detailed local research may be expected to reveal more fully exactly what was occurring.

The dynamic relationship between commodity and subsistence agriculture

From this initial comparison of the two local cases of Remedios and Guantánamo, it may be possible to draw some general conclusions as to what may have been happening on the mid-nineteenth century sugar frontier. The well-established argument that spreading sugar cultivation brought an increasing inability for the island to feed itself, and dependency on external sources of food – which is generally asserted at a national level – would only seem to be partially confirmed at the local level: while in Remedios, there does indeed appear to be a drop in self-sufficiency, despite the increase in the number of small farms, in Guantánamo food cultivation actually increased substantially.

Alongside export-commodity cultivation (sugar, but also coffee and tobacco, as well as smaller cash crops such as cacao), from early on can be seen the development of trade in imported food commodities: first of all beans, but also rice, as this became an important staple in the Cuban diet during the nineteenth century. Meanwhile, as the plantation economy took a hold – with its accompanying increase in demand for food crops – mass cultivation of some key foods (as a commodity for the national market, but also eventually for export) developed. Crops such as maize and bananas (as well as rice) began to be produced in some areas in great quantities, to be traded elsewhere in the island, taking advantage of the transport and trading networks that the commodity-driven economy (primarily led by sugar) had developed. Such food-producing farms (though they would appear as *sitios de labor*) need to be distinguished, as part of the commodity system, from those farms that continued to produce essentially for subsistence and the local market. However, while such developments were already nascent during the mid-nineteenth century, they should not be overstated. As Ramón de la Sagra (director of Havana's botanic gardens during the period) pointed out, food cultivation in Cuba did not greatly change during the middle years of the century, and “has not yet acquired the importance it demands and needs, both in quantity and in the number of products”.⁶² Nevertheless, the foundations were clearly set for later expansion.

The division between the local subsistence economy and the commodity networks was never a clear-cut one. Many smallholdings included in their activities the cultivation of small quantities of commodity crops. This was obviously true of the tobacco *vegas*, on which commodity cultivation was continually alternated and combined with food crops; but the small *sitios* and *estancias* did not necessarily distinguish between food and cash crop, if these could obtain them some advantage in the local market. While sometimes such produce would contribute to the district's overall production for export, smallholdings would perhaps more usually satisfy local demands for such merchandise: be it sugar, coffee or tobacco, or even cotton. As such, they can still be considered as part of the local subsistence economy. However, with the expansion of sugar plantations, local areas became more firmly drawn into the export-oriented trading networks that spread as a part of this. In the process, the local food markets appear to have become increasingly geared towards commodity trade, rather than being sites for local trade in a diverse range of food crops. Where local markets had previously essentially served local needs, they increasingly came to form part of the servicing of the plantation complex. To an increasing degree, basic food requirements (of crops that could be readily produced in large quantities, transported, and hence commodified) came to be on the one hand met by import either from abroad or from other parts of the island, and, on the other, at the same time to dominate the output of local food-producing farms. Meanwhile, fresh foods – vegetables and fruits, which were somewhat harder to commodify due to

⁶² Ramón de la Sagra, *Cuba en 1860*, Paris, 1862, p.179.

transport and durability problems, and therefore took longer to succumb to this commodification process – continued to be cultivated or collected, but more as subsistence crops or for informal local exchange: be it barter between neighbours, itinerant sale, or through local bodegas.

At the same time, the plantations themselves developed their own forms of subsistence cultivation – whether as *conucos*, or through other means of internal cultivation of food crops to supplement supply. This resulted in a continuing diversity that remained somewhat obscured by cane’s shadow. Although there may well have been a tendency towards the limitation of the amount of land made available for slave *conucos*, more recent research suggests that far from disappearing these were maintained post-emancipation,⁶³ partly as a means of continuing to tie workers to the plantations when otherwise they could easily have left to seek their livelihoods elsewhere. The early experiments in centralisation of sugar production, while of course obliging *colonos* to cultivate cane, did not expect this to be exclusive. The 1844 proposal from the Conde de Mopox would only have obliged tied farmers to plant half their land to cane, leaving the remainder free to produce subsistence crops or for the market.⁶⁴ Likewise, when Francisco Diago experimented with distributing peripheral, otherwise underutilised land to *colonos* to help supply his Tinguaro mill, the contracts only required a proportion of the land to be planted to cane, with the rest available to produce other foods and rear animals. For all that Diago was one of the period’s leading sugar manufacturers, it is clear that he was very sensitive to the benefits to be obtained from encouraging small rural property ownership and farming.⁶⁵

As the nineteenth century progressed, the tendency towards expansion of sugar plantations and domination of the commodity system, while pushing into the shadows the local subsistence economy, persisted. This process was assisted by three key developments, each of which tilted the balance away from ‘*Cuba pequeña*’ towards the emergence of large sugar *latifundia*, which dominated the island by the early twentieth century. The first of these events occurred in the 1840s, when a series of large hurricanes swept across the island, in particular affecting the rich agricultural lands of the west. The 1844 hurricane followed a period of water shortage, and a newspaper reported in 1844 that:

the results ...will subject this fertile part of the island... to new and greater damage than was experienced with the drought. The planted fields of rice, corn, yucca, plantains – everything has perished. Fences, houses, trees, forests – everything has been left destroyed.⁶⁶

Peasant smallholders were the worst affected, as reports came in from about the country of the “sorrowful effect on the condition of families in the countryside, creating unemployment and misery”.⁶⁷ Damage was not only caused by the high winds and heavy rains. Saltwater was also carried deep inland, contaminating freshwater supplies to the ongoing detriment of crops.⁶⁸ Two years later another massive hurricane struck, again devastating agriculture and

⁶³ See, for example, Scott (1985); 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 (1998), pp.687-728; Imilcy Balboa Navarro, *La protesta rural en Cuba: resistencia cotidiana, bandolerismo y revolución (1878-1902)*, Madrid: CSIC, 2003, p.47.

⁶⁴ AHN, UFC, 17/8.

⁶⁵ AHN, UFC, 66/18.

⁶⁶ *Faro Industrial*, 12 October 1844, p.3, cited in Pérez (2001), p.63.

⁶⁷ Report on Cienfuegos, Francisco Zoyestino to Governor General, 2nd November 1844, ANC, Fondo Donativos y Remisiones, cited in Pérez (2001), p.63.

⁶⁸ Pérez (2001), p.64.

rural communities. The subsistence crops upon which the rural population depended were worst hit. Although sugar crops were also damaged, they were the quickest to recover, and plantation owners were financially in a better position to do so. One of the effects of the storms was to further the collapse of Cuban coffee production, and in their aftermath many coffee estates became converted – some to more general farming, but more frequently shifting to cane, with the attendant loss of the diversified use of land that generally accompanied coffee cultivation. Whereas one-seventh of cultivated land in Cuba was taken up by coffee estates in 1842, this had fallen to just one-twentieth ten years later.⁶⁹ While the hurricanes did not bring peasant smallholding to an end, they highlighted the social and economic disparity between small farmers and rural labourers, and the sugar planters. With the absence of rural banking and credit facilities that might have assisted them in their recovery, they found themselves increasingly more dependent upon the plantations, which continued to expand across the country and to dominate local markets.

This process was intensified during the final third of the nineteenth century by the three wars of independence: 1868-78, 1878-79 and 1895-98. As with the hurricanes, it was the rural poor that was worst hit, losing their land, crops and livelihood.⁷⁰ In the 1895-98 war, some 80 percent of smallholdings were destroyed – and in some districts the destruction was almost total:⁷¹ not only as a result of fighting and pillage, but also of the Spanish policy of reconcentration, by which the rural population was forced into larger towns and cities where they could be more closely controlled. This in itself brought much hunger, with large numbers dying of starvation and disease, but it also resulted in the disappearance of much of the island's agriculture, as well as many rural population centres. As with the hurricanes of the 1840s – but to a much greater extent – there was a clear disparity between the damages suffered by smallholder agriculture, and the increasingly large sugar plantations; as too in their respective ability to recover. While investment was forthcoming to promote the continuing advance of the latter, peasant farmers were faced by debts they were generally unable to meet – and for which the military orders imposed by the occupying US army prior to the granting of Cuban independence allowed no relief.⁷² Losing their lands, many came to the cities or tramped the land in search of employment. Contemporary reports abounded of the state the country had fallen to, so far removed from the bright image of 'little Cuba' of half a century before.

The sugar industry came out as an obvious winner of the wars, and the first two decades of the twentieth century saw the completion of cane's dominance of the island's economy and land use, extending now to every part of Cuba where it could conceivably be grown. However, the plantations of this period were very different to those that had characterised the earlier period: sugar production became concentrated in large central factories while cane cultivation was divided up amongst planters whose role was to provide the factories with the necessary raw material. In those places where the sugar industry already existed, the strongest mills took on the central role while others became reduced to cane cultivation; while in those places, in particular in the eastern half of the island where till then sugar had been little more than a small local industry producing low quantities for local consumption,⁷³ investors (many of them foreign) were able to establish massive *latifundia*, acquiring vast quantities of land that was either previously unexploited or in the hands of the

⁶⁹ Pérez (2001), pp.86-92.

⁷⁰ Iglesias (2005), p.23.

⁷¹ Iglesias (2005), p.95.

⁷² Balboa (2003), pp.178-9.

⁷³ Rebello (1860).

weakened peasantry.⁷⁴ Whereas the earlier experiments had been aimed at encouraging the settlement of land by peasant farmers, and helped stimulate its cultivation not just with cane but also food crops, as the formation of sugar centrals accelerated, and with them their demand for ever larger quantities of cane, existing agricultural land became swallowed up. With the rural population finding themselves in an increasingly precarious position – thanks in great part to the hurricanes and then wars – the opportunity to become *colonos*, planting cane for the sugar mills, offered the chance to obtain an income and means of subsistence based not upon the cultivation of their own food crops, but on participation in the sugar economy.⁷⁵ It was also seen as a means of attracting farmers back to the land, which they had abandoned during the war years.⁷⁶

Dependency had thus moved from sugar wealth helping to stimulate local food cultivation and trade (albeit with demand outstripping local supply), to the latter becoming subsumed within the former. Cane proved attractive to many as a crop, since it was easy to plant at minimal expense and had an apparently guaranteed market thanks to the hunger of the sugar mills, while vegetable cultivation required greater skill but for a lower return. Even livestock farms became dismantled during the last third of the nineteenth century, and subdivided with much being turned to cane.⁷⁷ There could be seen the spread of an attitude among many that rather than seeking self-sufficiency and independently sustainable rural communities, it was preferable to be participating in the economy of monetary exchange. One commentator remarked in 1882: “if the question is between cane or bananas, should we have to choose between the two we prefer to do without bananas rather than to live without money”.⁷⁸ The new centrals swallowed up “[l]ands that before had been composed of forests, grassy savannas, and crops, or subdivided into ingenios, potreros, estancias, and other types of farms.”⁷⁹ Unlike earlier experiments in centralised production, these new centrals generally established restrictive contracts governing the *colonos*, and denying them freedom to choose which crops they wished to cultivate;⁸⁰ and it was seen as preferable to purchase and import

⁷⁴ The first examples of the central sugar factory concept appear to have been promoted by the French sugar engineering company, Derosne and Cail, in Reunion (1838) and Guadeloupe (1844) (Michael Stephen Smith, *The Emergence of Modern Business Enterprise in France, 1800-1930*, Cambridge: Harvard University Press, 2006, p.210; Marc Herold, ‘The import of European sugar machinery to offset the sugar crisis in Bahia, 1875-1914’, *Rev. Cienc. Admin. Fortaleza* 15:1 (Jan-June 2009), p.15). Shortly afterwards in Cuba, the Conde de Mopox y Jaruco proposed the promotion of white colonisation through distribution of lands, partly tied to cane cultivation, on his La Reserva estate (AHN, UFC, 17/8). Further experiments took place in the pre-war years, but the model did not become established until after the Ten Years’ War in the 1880s, when the Spanish government received numerous calls for support (the granting of concessions, tax breaks etc.) for their establishment (Conde de Ibáñez, *Proyecto para la creación, por el gobierno de la nación, de cincuenta ingenios centrales, con empleo exclusivo de trabajadores libres*, Havana: El Sol, 1881). Thereafter, the central system spread progressively, until by the early twentieth century – hastened by the 1895-98 war forcing many of the smaller sugar mills out of business – while Cuban sugar production continued to grow, it did so in fewer units. Whereas in 1862 there had been 1,473 ingenios producing 454,758 tons of sugar, in 1890 there were only 450 remaining (producing 636,239 tons), and by 1920 around 4 million tons were being produced in just 193 centrals (Marrero (1984), p.278; Moreno (1978), Vol.3, pp.36-9; Rosalie Schwartz, *Lawless Liberators: political banditry and Cuban independence*, Durham: Duke University Press, 1989, p.265).

⁷⁵ Ibáñez (1881), p.11.

⁷⁶ Report, Sección de Agricultura, in letter from Capitan General, 7 September 1889 (AHN, UFC, 173/18).

⁷⁷ Funes (2008), pp.185, 197 & 219.

⁷⁸ ‘El plátano y la caña’, *La Nueva Era*, año 1, 15 (1 June 1882), p.263.

⁷⁹ Funes (2008), p.219. Also Louis A. Pérez, Jr., *Lords of the Mountain: banditry and peasant protest in Cuba, 1878-1918*, Pittsburgh: Pittsburgh University Press, 1989, p.16.

⁸⁰ Imilcy Balboa, ‘Transición política y respuesta campesina. Cuba, 1899-1902’, *Revista de Indias* 61:222 (2001), p.329.

necessary foods for the farming population rather for them to divert any land from cane in order to produce this themselves.⁸¹

There was a perception by many Cubans that, though cultivation of cane as a *colono* might provide a source of income, to become reduced to this for many was little better than being a “white slave”.⁸² Indeed, it was noticeable that a very high proportion of *colonos* were racially white, with black and coloured peasants more likely to be cultivating diversified crops on their smallholdings. A North American observer commented in 1898 that Cubans in the countryside “seem to prefer the cultivation of small patches of ground for themselves, rather than working for wages, although the net result to them may not be so favorable”.⁸³ Sugar centrals certainly seem to have increased the level of control over the countryside, with large landowners in the early twentieth century making use of the police force (*guardia civil* and *rural*) against the rural population.⁸⁴ In some regions, in particular the centre of the island, there was a tendency for clientelist relations to be established between landowners and the peasants, with this strengthened by the independence wars, and continuing afterwards well into the twentieth century.⁸⁵ The large sugar *latifundia* of the early twentieth century sought to obtain as much land as possible, often through fraud and intimidation; and when they were unable to eliminate smallholders they found ways to tie them into a virtual feudal relationship to the plantation.⁸⁶

This can be seen in the numbers of smallholdings (*sitios de labor* and *estancias*), which fell from a total of 34,546 in 1862 to 17,094 by 1877 (during the first war of independence), and then only slowly recovered, reaching just 23,238 before the outbreak of the 1895-98 war.⁸⁷ This was further accentuated in the aftermath of the war of independence, when, despite attempts to encourage peasants back to the land, the ongoing difficulties faced by small farmers in obtaining credit were compounded by a combination of effects: perceived dangers and insecurities; because they had already obtained urban employment and were in no hurry to return to the land; because they had sold their farms or the contract they had, if they were renting, had expired; or because of the death during the war of the family’s menfolk.⁸⁸ In the east of the island, which had largely escaped the advance of sugar cane in the nineteenth century but which became increasingly important during the early twentieth century – providing as it did large expanses of underdeveloped land – “expansion of the sugar system foretold the extinction of small fincas and the expulsion of farmers”: in Alto Songo, the number of smallholdings fell from 1,515 in 1899 to just 477 in 1905; in Guantánamo, from 1,262 in 1899 to 419 in 1911; and a similar tendency can be seen throughout the region.⁸⁹ With each round in the cycle of oscillating sugar prices bringing a fresh expansion in cane cultivation, and a new burst of peasant displacement, resulting in the gradual destruction of an independent peasantry.⁹⁰

⁸¹ Ibáñez (1881), pp.23-5; Balboa (2003), p.74.

⁸² Juan Bautista Jiménez, *Los esclavos blancos*, Havana: A. Alvarez, 1893.

⁸³ William J. Clark, *Commercial Cuba*, New York: Charles Scribner’s Sons, 1898, p.39.

⁸⁴ Funes (2008), p.187; Balboa (2003), p.103.

⁸⁵ Balboa (2003), p.198; McGillivray (2009).

⁸⁶ Oscar Zanetti et al., *United Fruit Company. Un caso de dominio imperialista*, Havana: Editorial de Ciencias Sociales, 1977, pp.58ff. & 125.

⁸⁷ Toledo (1864); Scwartz (1989), p.265.

⁸⁸ Balboa, *Protesta rural*, p.171.

⁸⁹ Pérez (1989), pp.137-8.

⁹⁰ Pérez (1989), pp.140-68.

A community made up largely of self-sufficient farmers and peasants was reorganized into a society consisting largely of dependent rural workers, frequently working for foreign corporations, eating foreign-produced foods, living often in company towns, and buying from mill stores.⁹¹

As the Cuban anthropologist Fernando Ortiz observed:

The small Cuban landowner, independent and prosperous... is gradually disappearing. The farmer is becoming a member of the proletariat, just another laborer, without roots in the soil, shifted from one district to another.⁹²

Nevertheless, despite the macroeconomic balance tilting so firmly in favour of sugar cane, the vision of '*Cuba pequeña*' continued to persist, albeit in the margins and the interstices of the sugar complex. But the survival was a difficult one, and considerable rural discontent and conflict arose, prompted by the precariousness of rural life, the tendency to find themselves displaced by cane, and the frustrated expectations of the liberation struggle.⁹³ The burning of cane fields had, since the nineteenth century, been symbolically very important as an expression of this, and this continued in the twentieth century;⁹⁴ while "many rural communities defended their lands tenaciously."⁹⁵ Rural banditry, supported by extensive peasant kinship networks, also was a commonplace phenomenon in the Cuban countryside, from the time of the Ten Years' War onwards.⁹⁶

Such developments were still in the future for those inhabitants of rural areas on the sugar frontier, such as Remedios and Guantánamo, in the mid-nineteenth century. However, in the immediate effects of the impact of extended sugar plantations on the local subsistence economy can be seen the foundations for this growing tension. In some areas, for all the apparent economic dependency on sugar, and the persistence of food farms in close proximity to cane plantations, there seems to have been a lack of direct communication between the two. This could be seen in the *ingenio* Santa Elena in Bolondron, in 1869, during the Ten Years' War, at the time of official investigations relating to a case being brought against the sugar master for his involvement with the liberation army. In his interrogation, he confirmed that he knew some of the peasant farmers by sight, "but does not know their names because he has no dealings with them". Clearly, although the *ingenio* was surrounded by smallholdings, these and the sugar plantation largely seem to have existed as two distinct entities.⁹⁷ This can also be seen in the conflicts that sometimes arose as a result of the exploitation entailed by sugar production, resulting in, for example, the contamination of the water supply by the sugar mills. Two of the mid-nineteenth century's leading *ingenios*, the Santa Rosa and San José, both owned by Domingo Aldama, antagonised other locals because of their pollution of the San Andrés river, into which they were pouring their effluent. The water downstream from the plantations was black and fetid, and resulted in considerable illness in the village of La Unión.⁹⁸

⁹¹ Pérez (1989), p.175.

⁹² Fernando Ortiz, *Cuban Counterpoint: Tobacco and Sugar*, New York: Random House, 1970, p.53.

⁹³ Balboa (2001).

⁹⁴ McGillivray (2009).

⁹⁵ Pérez (1989), p.180.

⁹⁶ Pérez (1989); Schwartz (1989); Balboa (2003).

⁹⁷ AHN, Ultramar, Gobierno de Cuba, 4355/25.

⁹⁸ Archivo Histórico Provincial de Matanzas, Gobierno Provincial, Ingenios, 4/51.

In conclusion, it would seem that to state that the expansion of the Cuban sugar industry in the nineteenth century resulted in the weakening of the island's ability to feed itself, while true at a national level, covers up the much more complex reality that is found when local districts are more closely examined. The spread of sugar plantations into a district often brought an increase in food-cultivating smallholdings; but these were often unable to keep pace with growing demand. At the same time, local subsistence economies on the one hand became gradually subsumed within the commodity system – with food crops aimed at servicing the plantation complex, or for trade elsewhere; while on the other, subsistence agriculture (previously the basis of local markets), while it did not vanish, became increasingly invisible, pushed further into the ever deepening shadow cast by the cane.

References

- Balboa Navarro, Imilcy, 'Transición política y respuesta campesina. Cuba, 1899-1902', *Revista de Indias* 61:222 (2001), pp.307-29
- Balboa Navarro, Imilcy, *La protesta rural en Cuba: resistencia cotidiana, bandolerismo y revolución (1878-1902)*, Madrid: CSIC, 2003
- Barnet, Miguel, *Biografía de un cimarrón*, Havana: Editorial Letras Cubanas, 2001 [1966]
- Benítez, José A., *Las Antillas: Colonización, Azúcar e Imperialismo*, Havana: Casa de las Américas, 1977
- Bergad, Laird, *Cuban Rural Society in the Nineteenth Century: The Social and Economic History of Monoculture in Matanzas*, Princeton: Princeton University Press, 1990
- Cabezas Bolaños, Esteban and Espinoza Esquivel, Ana M., 'El arroz en América: su introducción y primeras siembras', *Revista de Historia de América*, 126 (Jan.-June 2000), pp.7-18
- Carney, Judith A., *Black Rice: the African origins of rice cultivation in the Americas*, Cambridge: Harvard University Press, 2001
- Clark, William J., *Commercial Cuba*, New York: Charles Scribner's Sons, 1898
- Fernández Prieto, Leida, *Cuba Agrícola: Mito y Tradición, 1878-1920*, Madrid: CSIC, 2005
- Fernández Prieto, Leida, *Espacio de poder, ciencia y agricultura en Cuba: el Círculo de Hacendados, 1878-1917*, Madrid: CSIC/Universidad de Sevilla/Diputación de Sevilla, 2008
- Funes Monzote, Reinald, *From Rainforest to Cane Field in Cuba: an environmental history since 1492*, Chapel Hill: University of North Carolina Press, 2008
- García Alvarez, Alejandro, *La costa cubana del guineo. Una historia bananera*, Havana: Editorial Ciencias Sociales, 2008
- García Alvarez, Alejandro, 'Las economías locales en el oriente de Cuba: cultivo y exportación bananera (1878-1895)', in Antonio Santamaría & Consuelo Naranjo, *Más allá del azúcar: política, diversificación y prácticas económicas en Cuba, 1878-1930*, Madrid: Doce Calles, 2009, pp.219-50
- García Rodríguez, Mercedes, *Entre Haciendas y Plantaciones: Orígenes de la manufactura azucarera en La Habana*, Havana: Editorial Ciencias Sociales, 2007
- Herold, Marc, 'The import of European sugar machinery to offset the sugar crisis in Bahia, 1875-1914', *Rev. Cienc. Admin. Fortaleza* 15:1 (Jan-June 2009), pp.11-37
- Humboldt, Alexander von, *Ensayo político sobre la Isla de Cuba*, Paris: Lecointe y Lasserre, 1840 [1826]
- Ibáñez, Conde de, *Proyecto para la creación, por el gobierno de la nación, de cincuenta ingenios centrales, con empleo exclusivo de trabajadores libres*, Havana: El Sol, 1881
- Iglesias, Fé, *Economía del fin de siglo*, Santiago de Cuba: Editorial Oriente, 2005
- Jiménez, Juan Bautista, *Los esclavos blancos*, Havana: A. Alvarez, 1893
- La Rosa Corzo, Gabino, *Runaway Slave Settlements in Cuba: Resistance and Repression*, Chapel Hill: University of North Carolina Press, 2003
- Le Riverend, Julio, *Historia económica de Cuba*, Havana: Instituto Cubano del Libro, 1974

- Maluquer de Motes, Jordi, *Nación e inmigración: los españoles en Cuba (ss.XIX y XX)*, Asturias: Ediciones Jucar, 1992
- Marrero, Levi, *Cuba: Economía y sociedad*, Vol.10, Madrid: Editorial Playor, 1984
- Maure, Virgen, *El proceso de formación de la región histórica de Guantánamo durante la colonia: estancamiento y cambio*, PhD thesis, University of Havana, 2008
- McGillivray, Gillian, *Blazing Cane: sugar communities, class, and state formation in Cuba, 1868-1959*, Durham & London: Duke University Press, 2009
- Moreno Fragnals, Manuel, *El Ingenio*, 3 vols, Havana: Editorial de Ciencias Sociales, 1978
- Naranjo Orovio, Consuelo, 'Cara y cruz de una política colonial: azúcar y población en Cuba', in Antonio Santamaría García and Consuelo Naranjo Orovio (eds), *Más allá del azúcar: política, diversificación y prácticas económicas en Cuba, 1878-1930*, Madrid: Doce Calles, 2010, pp.21-58
- Norman, Benjamin, *Rambles by Land and Water*, New York: Paine & Burgess, 1845
- O'Donnell, Leopoldo, *Cuadro estadístico de la siempre fiel Isla de Cuba... 1846*, Havana: Imprenta del Gobierno y Capitanía General, 1847
- Ortiz, Fernando, *Cuban Counterpoint: Tobacco and Sugar*, New York: Random House, 1970
- Pérez, Jr., Louis A., *Lords of the Mountain: banditry and peasant protest in Cuba, 1878-1918*, Pittsburgh: Pittsburgh University Press, 1989
- Pérez, Jr., Louis A., *Cuba: Between Reform and Revolution*, New York & Oxford: Oxford University Press, 1995
- Pérez, Jr., Louis A., *Winds of Change: Hurricanes and the Transformation of Nineteenth-Century Cuba*, Chapel Hill: University of North Carolina Press, 2001
- Pérez de la Riva, Francisco, *El café: historia de su cultivo y explotación en Cuba*, Havana: Jesús Montero, 1944
- Rebello, Carlos, *Estados relativos a la producción azucarera de la Isla de Cuba*, Havana, 1860
- Sagra, Ramón de la, *Estudios coloniales con aplicación a la isla de Cuba*, Madrid: Dionisio Hidaglo, 1845
- Sagra, Ramón de la, *Cuba en 1860*, Paris, 1862
- Sarmiento Ramírez, Ismael, *Cuba: entre la opulencia y la pobreza*, Madrid: Aldaba, 2004
- Sartorius, David, 'Conucos y subsistencia: el caso del ingenio Santa Rosalia', in Fernando Martínez Heredia, Rebecca Scott & Orland García Martínez (eds), *Espacios, silencios y los sentidos de la libertad. Cuba entre 1878 y 1912*, Havana: Ediciones Unión, 2001, pp.108-127
- Schwartz, Rosalie, *Lawless Liberators: political banditry and Cuban independence*, Durham: Duke University Press, 1989
- Scott, Rebecca L., *Slave emancipation in Cuba: the transition to free labor, 1860-1899*, Princeton: 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 (1998), pp.687-728

- Smith, Michael Stephen, *The Emergence of Modern Business Enterprise in France, 1800-1930*, Cambridge: Harvard University Press, 2006
- Stubbs, Jean, *Tabaco en la periferia*, Havana: Editorial de Ciencias Sociales, 1989
- Toledo, Armildez de, *Noticias estadísticas de la isla de Cuba en 1862*, Havana: Imprenta de Gobierno y Capitanía General y Real Hacienda, 1864
- Torre, Marqués de la, *Noticias de la isla de Cuba con que acompañó el padrón del año de 1775*, Havana, 1789
- US War Dept., *Informe sobre el censo de Cuba, 1899*, Washington DC: Government Printing Office, 1900
- Venegas Delgado, Hernán, ‘Consideraciones en torno a la economía mediana colonial’, *Islas*, 67 (1980), pp.11-79
- Venegas Fornías, Carlos, ‘Estancias y sitios de labor: su presencia en las publicaciones cubanas del siglo XIX’, *Colonial Latin American Historical Review*, 81:3-4 (2001), pp.27-59
- Zanetti, Oscar et al., *United Fruit Company. Un caso de dominio imperialista*, Havana: Editorial de Ciencias Sociales, 1977
- Zanetti, Oscar and García, Alejandro, *Sugar and Railroads: A Cuban History, 1837-1939*, Chapel Hill: University of North Carolina Press, 1998
- Zaragoza, Justo, ‘Cuadro estadístico de la siempre fiel Isla de Cuba, correspondiente al año de 1827...’, Havana: Oficina de las viudas de Arazoza y Soler, impresoras del Gobierno y Capitanía general por S. M., 1829

Other Commodities of Empire Working Papers

- WP01: Sandip Hazareesingh, “Chasing commodities over the surface of the globe”: shipping, port development and the making of networks between Glasgow and Bombay, c.1850-1880’ (October 2007)
- WP02: Jonathan Curry-Machado, ‘Sub-imperial globalisation and the phoenix of empire: sugar, engineering and commerce in nineteenth century Cuba’ (October 2007)
- WP03: Jean Stubbs, ‘Reinventing mecca: tobacco in the Dominican Republic, 1763-2007’ (October 2007)
- WP04: Miguel Suárez Bosa, ‘The role of the Canary Islands in the Atlantic coal route from the end of the nineteenth century to the beginning of the twentieth century: corporate strategies’ (January 2008)
- WP05: Ayodeji Olukoju, ‘The United Kingdom and the political economy of the global oil-producing nuts and seeds during the 1930s’ (January 2008)
- WP06: Roberto Davini, ‘A global commodity within a rising empire: the history of Bengali raw silk as connective interplay between the Company *Bahadur*, the Bengali local economy and society, and the universal Italian model, c.1750-c.1830’ (February 2008)
- WP07: Deana Heath, ‘Obscenity, empire and global networks’ (April 2008)
- WP08: David Hyde, ‘Global coffee and decolonisation in Kenya: overproduction, quotas and rural restructuring’ (July 2008)
- WP09: Vibha Arora, ‘Routing the commodities of empire through Sikkim (1817-1906)’ (July 2008)
- WP10: Kaori O’Connor, ‘Beyond ‘exotic groceries’: tapioca-cassava, a hidden commodity of empire’ (January 2009)
- WP11: Jonathan Robins, “‘The Black Man’s Crop’”: cotton, imperialism and public-private development in Britain’s African colonies, 1900-1918’ (September 2009)
- WP12: Jelmer Vos, ‘Of stocks and barter: John Holt and the Kongo rubber trade, 1906-1910’ (September 2009)
- WP13: Alan Pryor, ‘Indian Pale Ale: an icon of empire’ (November 2009)
- WP14: William G. Clarence Smith, ‘The battle for rubber in the Second World War: cooperation and resistance’ (November 2009)
- WP15: Steve Cushion, ‘Cuban Popular Resistance to the 1953 London Sugar Agreement’ (March 2010)

All Commodities of Empire Working Papers can be downloaded from the Commodities of Empire website, at <http://www.open.ac.uk/Arts/ferguson-centre/commodities-of-empire/working-papers/index.htm>.

Commodities of Empire is a joint research collaboration between the Open University's **Ferguson Centre for African and Asian Studies** and the **University of London's Institute for the Study of the Americas**. These two institutions form the nucleus of a growing international network of researchers and research centres.

The mutually reinforcing relationship between 'commodities' and 'empires' has long been recognised. Over the last six centuries the quest for profits has driven imperial expansion, with the global trade in commodities fuelling the ongoing industrial revolution. These 'commodities of empire', which became transnationally mobilised in ever larger quantities, included foodstuffs (wheat, rice, bananas); industrial crops (cotton, rubber, linseed and palm oils); stimulants (sugar, tea, coffee, cocoa, tobacco and opium); and ores (tin, copper, gold, diamonds). Their expanded production and global movements brought vast spatial, social, economic and cultural changes to both metropolises and colonies.

In the Commodities of Empire project we explore the networks through which such commodities circulated within, and in the spaces between, empires. We are particularly attentive to local processes – originating in Africa, Asia, the Caribbean and Latin America – which significantly influenced the outcome of the encounter between the world economy and regional societies, doing so through a comparative approach that explores the experiences of peoples subjected to different imperial hegemonies.

The following key research questions inform the work of project:

- 1) The networks through which commodities were produced and circulated within, between and beyond empires;
- 2) The interlinking 'systems' (political-military, agricultural labour, commercial, maritime, industrial production, social communication, technological knowledge) that were themselves evolving during the colonial period, and through which these commodity networks functioned;
- 3) The impact of agents in the periphery on the establishment and development of commodity networks: as instigators and promoters; through their social, cultural and technological resistance; or through the production of anti-commodities;
- 4) The impact of commodity circulation both on the periphery, and on the economic, social and cultural life of the metropolises;
- 5) The interrogation of the concept of 'globalisation' through the study of the historical movement and impact of commodities.

www.open.ac.uk/Arts/ferguson-centre/commodities-of-empire/index

Series Editor: Dr Jonathan Curry-Machado (ISA)

Project Directors: Dr Sandip Hazareesingh (OU) and Prof. Jean Stubbs (ISA)



The Open
University

**The Ferguson Centre for
African and Asian Studies**
The Open University
Walton Hall
Milton Keynes
MK7 6AA

**Institute for the Study
of the Americas**
University of London
Senate House
Malet Street
London WC1E 7HU



INSTITUTE FOR THE STUDY OF THE
A M E R I C A S
UNIVERSITY OF LONDON • SCHOOL OF ADVANCED STUDIES